() **Zeshui Xu**

() **Zeshui Xu**

1. Professor Xu has made outstanding and widely recognized contributions to decision making theories and techniques, fuzzy systems and applications, information fusion, and optimization algorithms. For his extraordinary technical contributions and pioneering applications, he was selected as Highly Cited Researchers from 2014 to 2021 in both Computer Science and Engineering, ranked 190th in career scientific impact among world's top 100,000 scientists in 2022 (Elsevier), ranked 57th among world's top 1000 scientists in Computer Science & Electronics in 2021, and ranked 40th among the World's best scientists in the arena of Computer Science in 2023 (Research.com). He has authored 18 monographs published by Springer, and contributed 810 SSCI or SCI papers to professional journals with more than 82,000 citations in Google Scholar, and his h-index is up to 142.

2. Professor Xu has been elected as Member or Fellow of some top European academic institutions, i.e., AE (Academia Europaea), EASA (European Academy of Sciences and Arts), RSA (Royal Society of Arts), IET (Institution of Engineering and Technology), BCS (British Computer Society), ORS (The Operational Research Society), and has actively served as Program Committee and participated in twenty international conferences held in Europe over last years, including: MDAI 2008, 2010, 2012, 2013, 2015, 2016, 2018-2023, EUROFUSE 2009, FIM 2015, MOPGP 2017, GLOSERV 2017, ICEMAT 2021, AIAM 2022, BIGML 2022, and GSERITA 2023. He has established long-term and stable cooperative relationships for research activities and joint training programs with 15 European universities and research institutions. Twenty-three of his Ph.D. students has been recommended by Professor Xu to University of Manchester, University of Granada, and Copenhagen Business School for joint training and academic visits. Among them, thirteen students have received doctorates.

3. As an active researcher, Professor Xu has kept a close contact and cooperation with numerous (about 20) excellent European scholars. Some of them, such as Professor Xiao-Jun Zeng of University of Manchester; Professor Jonathan Garibaldi of University of Nottingham, Professor Luis Martínez of University of Jaén; and Professor Enrique Herrera-Viedma of University of Granada, have visited Sichuan University many times, and some have jointly trained many Ph.D students with Professor Xu. After deep collaborations, some important and pioneering works have been finished, they have co-authored 108 SSCI or SCI papers in the professional journals including IEEE Transactions on Cybernetics, IEEE Transactions on Fuzzy Systems, etc. It not only promotes the in-depth exchange of academic ideas, but also fosters students with international vision.

ACHIEVEMENTS

- Member of AE (Academia Europaea), EASA (European Academy of Sciences and Arts), IASCYS (International Academy for Systems and Cybernetic Sciences);
- Distinguished Fellow of IETI (International Engineering and Technology Institute);

- Fellow of IEEE, ORS (The Operational Research Society), RSA (Royal Society of Arts), IFSA (International Fuzzy Systems Association), IET (Institution of Engineering and Technology), BCS (British Computer Society), IAAM (International Association of Advanced Materials), and AAIA (Asia-Pacific Artificial Intelligence Association);

- Thomson Reuters China Citation Laureates in both Computer Science and Engineering, Thomson Reuters, 2014;

- Natural Science Awards on Science and Technology Award, awarded by Ministry of Education in China, 2019, 2017, 2010, 2007;

- Distinguished Professor of Cheung Kong Scholars Program, awarded by the Ministry of Education of China;

- Distinguished Young Scholar of the National Natural Science Foundation of China, 2007-2010.

- National Award for Youth in Science and Technology of China, 2007;

- Co-Editor: Economic Research-Ekonomska Istraživanja;

- Associate Editor: IEEE Transactions on Cybernetics, IEEE Transactions on Fuzzy Systems, IEEE Access, Information Sciences, Artificial Intelligence Review, Cognitive Computation, International Journal of Systems Science, Journal of the Operational Research Society, Fuzzy Optimization and Decision Making, Applied Intelligence, Journal of Intelligent & Fuzzy Systems, International Journal of Fuzzy Systems, International Journal of Machine Learning and Cybernetics, etc.;

- Editorial Board Member: Information Fusion, Applied Soft Computing, Studies in Informatics and Control, Financial Innovation, Technological and Economic Development of Economy, etc.;

- Reviewer for more than 300 professional journals, among which there are more than 250 international journals;

- Chair/Member of Technical/Program Committee Member of more than 60 academic conferences;

- Delivered more than 250 keynote reports at academic conferences and educational institutions.

- Directing and participating in more than 30 research projects including 12 projects from the National Natural Science Foundation of China, especially the National Science Fund for Distinguished Young Scholars of China, and collaborating in some international collaborative projects.

PUBLICATIONS

1   **Zeshui Xu**. Intuitionistic fuzzy aggregation operators. *IEEE Transactions on Fuzzy Systems*, 15 (2007): 1179-1187.

(First developed a series of aggregation operators from the perspective of fusion of intuitionistic fuzzy information, which laid a strong foundation for further scientific computation and dealt with the "bottleneck" problems in the intuitionistic fuzzy set theory. This paper presented a new idea of aggregation operators transforming from the real numbers to the intuitionistic fuzzy information, and created a new direction of fuzzy information fusion characterized by intuitionistic fuzzy sets. This paper received the

award for China's Most Influential Hundred International Papers in 2008, and ranked first among all the papers published in this journal after 2007.) [2585 citations in Google Scholar, ESI highly cited paper];

2 **Zeshui Xu***, Ronald R. Yager. Some geometric aggregation operators based on intuitionistic fuzzy sets. *International Journal of General Systems*, 35 (2006): 417-433. (*Corresponding author)

(First proposed a series of intuitionistic fuzzy geometric aggregation operators to fuse intuitionistic fuzzy information characterized by a membership function and a non-membership function, which are more consistent with human computational cognition. The sorting rule given in this paper was named "Xu-Yager's Order" by an IEEE Fellow Professor H. Bustince and an academician of Czech Academy Sciences R. Mesiar who considered it as important as classical lexicographical ordering commented in the journal: Fuzzy Sets and Systems (Vol. 220, pp. 69-77). This paper ranked first among all the papers published in this journal after 2006.) [2344 citations in Google Scholar, ESI highly cited paper];

3 Meimei Xia, **Zeshui Xu***. Hesitant fuzzy information aggregation in decision making. *International Journal of Approximate Reasoning*, 2011, 52(3): 395-407. (*Corresponding author)

(Developed a series of aggregation operators for hesitant fuzzy information and discussed the correlations among the aggregation operators, which enriched the hesitant fuzzy theory system and provided a fundamental calculation tool for further study. The distinguished aggregation operators definitely improved the efficiency of hesitant fuzzy information aggregation, which boosted the theory about complex information fusion and the application in decision-making.) [1639 citations in Google Scholar, ESI highly cited paper];

4 **Zeshui Xu***, Meimei Xia. Distance and similarity measures for hesitant fuzzy sets. *Information Sciences*, 2011, 181(11): 2128-2138. (*Corresponding author)

(Proposed a variety of distance measures and similarity measures for hesitant fuzzy set, which alleviated the influence of unduly large (or small) deviations on the aggregation results by assigning them low (or high) weights. The study not only improved the measurement system of hesitant fuzzy sets, but also made the decision-making results more accurate. Additionally, the paper has been noted and cited widely by a large number of scholars all over the world, which lay a solid foundation for the development of complex information-based decision-making.) [1201 citations in Google Scholar, ESI highly cited paper];

5 Xiaolu Zhang, **Zeshui Xu***. Extension of TOPSIS to multiple criteria decision making with Pythagorean fuzzy sets. *International Journal of Intelligent Systems*, 2014, 29(12): 1061-1078. (*Corresponding author)

(Pythagorean fuzzy set (PFS) is a powerful tool to manage the uncertainty in real-world

decision-making problems. This paper first presented some basic operational laws of PFSs and discussed their desirable properties. For the multi-criteria decision-making problems with PFSs, we proposed an extended technique for order preference by similarity to ideal solution method (TOPSIS) to deal effectively with them. A practical case study that concerns the evaluation of the service quality among airlines was conducted to verify the developed method. The proposed method is a pioneering and fundamental work in the field of PFSs, and has been widely recognized and used to solve the fuzzy multi-criteria decision making problems. [1272 citations in Google Scholar, ESI highly cited paper];

6   **Zeshui Xu**. A method based on linguistic aggregation operators for group decision making with linguistic preference relations. *Information Sciences*, 2004, 166 (1-4): 19-30.

(First proposed some operational laws and developed some aggregation operators for linguistic variables, which laid a solid foundation for tackling linguistic preference relations. Based on the proposed operators, a practical method for group decision-making with linguistic preference relations was also developed with no loss of information. Since it is the pioneering work in the field of linguistic decision making, this paper received great concerns of researchers.) [1017 citations in Google Scholar, ESI highly cited paper];

7   **Zeshui Xu**. Intuitionistic preference relations and their application in group decision making. *Information Sciences*, 2007, 177 (11): 2363-2379.

(First to propose intuitionistic preference relation, consistent intuitionistic preference relation, incomplete intuitionistic preference relation and acceptable intuitionistic preference relation. Group decision-making methods based on intuitionistic preference relations and incomplete intuitionistic preference relations were first introduced to rank and select alternatives. As one of groundbreaking works in the field of intuitionistic fuzzy sets, this paper not only creatively constructed a complex information expression pattern, but also largely promoted the development of group decision-making under uncertainty.) [974 citations in Google Scholar, ESI highly cited paper];

8   **Zeshui Xu**. An overview of methods for determining OWA weights. *International Journal of Intelligent Systems*, 2005, 20(8): 843-865.

(The ordered weighted aggregation (OWA) operator has received an astonishingly wide range of applications in information fusion since its appearance. One key point in the OWA operator is to determine its associated weights. This paper made a critical review of the existing procedures for determining the weights associated with the OWA operator, and then developed a novel normal distribution-based method for obtaining the OWA weights, which is distinctly different from the existing techniques. The prominent characteristic of the developed method is that it can relieve the influence of unfair arguments on the decision results by assigning low weights to those "false" or "biased" ones.) [905 citations in Google Scholar, ESI highly cited paper];

9 **Zeshui Xu***, Xiaolu Zhang. Hesitant fuzzy multi-attribute decision making based on TOPSIS with incomplete weight information. *Knowledge-Based Systems*, 2013, 52: 53-64. (*Corresponding author)

(Hesitant fuzzy set, which allows the membership degree of an element to a set represented by several possible values, is considered as a very useful tool to express uncertain information in the process of multi-attribute decision making (MADM) problems. The paper proposed a novel approach based on TOPSIS and the maximizing deviation method for solving MADM problems, in which the evaluation information provided by the decision maker is expressed in hesitant fuzzy elements and the information about attribute weights is incomplete. The proposed approach was also extended to deal with interval-valued hesitant fuzzy inforamtion, which developed the complex information techniques in uncertain circumstances.) [633 citations in Google Scholar, ESI highly cited paper, ESI hot paper];

10 Qi Pang, Hai Wang, **Zeshui Xu***. Probabilistic linguistic term sets in multi-attribute group decision making. *Information Sciences*, 2016, 369, 128-143. (*Corresponding author)

(First to propose the probabilistic linguistic term set, which can better reflect the uncertain information of decision-makers. This paper put forward some operational laws and aggregation operators for probabilistic linguistic term sets to solve the problems of calculating incomplete probabilistic information of linguistic terms in decision making, which enriched the theory of complex information fusion. This study has provided an effective technique to express and deal with linguistic preference information under big data environments and has been extensively applied to solve online reviews-deriven decision making problems in the era of data economy) [866 citations in Google Scholar, ESI highly cited paper, ESI hot paper].

BIOGRAPHY WITH PHOTO:

Zeshui Xu received the Ph.D. degree in management science and engineering from Southeast University, Nanjing, China, in 2003. From October 2005 to December 2007, he was a Postdoctoral Researcher with School of Economics and Management, Tsinghua University, China. He was a Distinguished Young Scholar of the National Natural Science Foundation of China and the Chang Jiang Scholar of the Ministry of Education of China. He is currently a Chair Professor with Sichuan University, Chengdu. He was selected as one of the Highly Cited Researchers from 2014 to 2021 in both Computer Science and Engineering, ranked 30th in 2019 single year scientific impact and 193th in career scientific impact among World's top 100,000 Scientists (released by *Mendeley Data, Elsevier*), ranked 57th among World's top 1,000 Scientists in Computer Science & Electronics in 2021, and ranked 40th among the World's best scientists in the arena of Computer Science in 2023 (released by *Guide2Research* (*Research.com)*). For his outstanding contributions to decision making theories and methodologies, information fusion and clustering techniques, etc., he has been elected to the Member of EA, EASA, IASCYS, Distinguished Fellow of IETI, and Fellow of

IEEE, IFSA, RSA, IET, ORS, BCS, IAAM, VEBLEO, AAIA. He received rewards of Thomson Reuters China Citation Laureates in both Computer Science and Engineering (2014), four Natural Science Awards on Science and Technology from Ministry of Education of China (2007, 2010, 2017, 2019), the Distinguished Young Scholar of the National Natural Science Foundation of China (2007-2010), and National Award for Youth in Science and Technology of China (2007), etc.

Professor Xu has given outstanding service on academic and international professional bodies over the last decades. He serves as the Co-Editor: Economic Research-Ekonomska Istraživanja, and the Associate Editor or the Editorial (Advisory) Board Member for more than thirty professional journals, including IEEE Transactions on Cybernetics, IEEE Transactions on Fuzzy Systems, IEEE Access, Information Sciences, Information Fusion, Artificial Intelligence Review, Cognitive Computation, Applied Intelligence, and Journal of the Operational Research Society, etc., Reviewer for more than 300 professional journals. He has been invited as the Committee Member of more than 60 internal and international academic conferences, and has been invited to make more than 250 keynote reports at international and national conferences and educational institutions.

He has made great contributions and pioneering work to decision-making theory and techniques, information fusion and clustering techniques, big data analytics, fuzzy systems and applications. He has constructed the fusion theory, preference relations methodology, and decision-making framework based on different information forms, including interval-valued information, linguistic information, intuitionistic fuzzy information, hesitant fuzzy information, probabilistic information, etc. His remarkable work has laid solid theoretical foundation and provided great application prospects for uncertain decision making and fuzzy systems, and has been widely applied in solving a variety of social issues, such as the modeling of complex problems in military field and the risk evaluation of strategic energy channels, and so on. Besides those theoretical studies, He also made important contributions to the area of the whole social resource value enhancement and effect evaluation based on environment and healthcare. Based on the uncertain decision-making theory and methods, he studied the medical health service system in West China Hospital, Sichuan, China and its internal relations, and then he analyzed the path and mechanism of the whole social resource value enhancement of the environment and healthcare. Considering the uncertain decision-making environment and the development of the big data analysis and application, he made the effect and value assessment about the environment and health care social resource integration management in that hospital, and provided positive and effective decision support and reference for sustainable value promotion of medical management.

He has been the director of more than 30 research projects and has participated in several internationally collaborative projects. His work has been presented in 18 monographs published by Springer and 810 SCI or SSCI indexed papers to professional journals, among which there are 116 top one percent ESI highly cited papers and 19 ESI hot papers. His publications have more than 82,000 citations with the h-index of 142 in *Google Scholar*. His huge scientific record comprises of a very high number of highly cited publications, many prestigious, economically and socially relevant research projects which concern challenging problems faced by science, technology and economy. Notably, his pioneering work in hesitant fuzzy sets makes it ranked first in the top 10 global hot frontiers in the fields of Computer Sciences, Engineering, and Mathematics, 2016.

Professor Xu has a very active involvement in teaching and supervising the new generation of researchers. He has supervised 59 Ph.D. students, 60 M.S. students and 18 Post-Doctors, and maintained close relationship with researchers in Europe for research and students' joint supervision. He has recommended his excellent students to international and internal academic institutions and universities for further study and work, 23 of them went/go to

Europe for joint supervision and academic visits. He has for years actively collaborated with European scholars and researchers, as well as with leading European research groups at various universities and academic research institutes. Especially, he has established long-term and stable cooperative relationships with the Machine Learning Group and the Decision and Cognitive Sciences Research Center of the University of Manchester, and the School of Computer Science, University of Manchester, U.K.; the Research Center on Information and Communications Technology of the University of Granada, the Andalusian Research Institute in Data Science and Computational Intelligence, University of Granada, the Institute of Smart Cities, Public University of Navarre, the Universitat Politècnica de Catalunya-BarcelonaTech, and the Department of Computer Science, University of Jaén, Spain; the Systems Research Institute, Polish Academy of Sciences, Poland; the Advanced Data Analysis Centre, School of Computer Science, University of Nottingham; and the Faculty of Business and Physical Sciences, Aberystwyth University, U.K.; The Romanian Academy; The Agora University of Oradea, Romania; Copenhagen Business School, Denmark, etc.

Being one of active researchers, he has kept close contacts and cooperation with numerous excellent and honored European scholars, such as Professor Janusz Kacprzyk (Member of Royal Spanish Academy of Economic and Financial Sciences, RACEF, Polish Academy of Science, Academia Europaea, Academy of Sciences and Arts, International Academy for Systems and Cybernetic Sciences, IASCYS, IEEE and IET Fellow), Professor Zidong Wang (Member of the Academia Europaea, European Academy of Sciences and Arts, IEEE Fellow, and Editor-in-Chief of International Journal of Systems Science), Professor Bo Chen (Member of the Academy of Social Sciences, U.K.), Professor Francisco Herrera (Member of Royal Spanish Academy of Engineering, and Editor-in-Chief of Information Fusion), Professor Florin Gheorghe Filip (Academician of Romanian Academy), Professor Edmundas Kazimieras Zavadskas (Member of Lithuanian Academy of Science), Vicenç Torra (IEEE Fellow, Full Professor of Maynooth University, Ireland), Jonathan Garibaldi (Former Editor-in-Chief of IEEE Transactions on Fuzzy Systems, Full Professor of University of Nottingham, U.K.), Professor Enrique Herrera-Viedma (Member of the Academia Europaea, IEEE Fellow, Vice-President of The University of Granada, Spain), Luis Martínez (Full Professor of University of Jaén, Spain, Editor-in-Chief of International Journal of Computational Intelligence Systems), Humberto Bustince (IFSA Fellow, Full Professor of Navarra Public University, Spain); Xiao-Jun Zeng (Full Professor of University of Manchester), Jian-Bo Yang (Chair Professor of Decision and Systems Sciences and Director of the Decision and Cognitive Sciences Research Centre at University of Manchester, U.K.), Professor Ioan Dzitac (Rector of Agora University of Oradea, Romania), Professor Qiang Shen (Pro Vice-Chancellor of Aberystwyth University, U.K.), John Keane (MG Singh Chair of Data Engineering, University of Manchester, and Honorary Professor of Data Analytics, Manchester Business School, U.K.), Chee-Wee Tan (Full Professor of Copenhagen Business School, and Senior Editor of MIS Quarterly), etc. They have collaborated and published 108 SSCI or SCI indexed papers by now. It not only promotes the in-depth exchange of academic ideas, but also fosters the scholars with international visions.

PROJECT MANAGEMENT, GRANTS OR FUNDING RECEIVED:

Directing and participating in more than 30 research projects including 12 projects from the National Natural Science Foundation of China, especially the National Science Fund for Distinguished Young Scholars of China, and collaborating in several international collaborative projects. The research projects supported by National Natural Science Foundations are shown as follows:

- Decision-making theory and techniques (The National Science Fund for Distinguished

Young Scholars of China), director, 2007-2010, ￥1,400,000;

- Research on the theory and application of probabilistic preference intelligent decision-making for medical aided diagnosis, director, 2023-2026, ￥450,000;
- Probabilistic preference decision-making theory and their application in water resources emergency management, director, 2021-2024, ￥490,000;
- Probabilistic linguistic term set theory and its application in smart medical treatment and health services, director, 2018-2021, ￥520,000;
- Priority theories of intuitionistic judgement matrices and their applications to marine environment risk assessment of China's strategic energy channels, director, 2016-2019, ￥493,000;
- Hesitant fuzzy information fusion theory and its application in decision making, director, 2013-2016, ￥790,000;
- Intuitionistic fuzzy clustering theory and its application, director, 2011-2013, ￥270,000;
- Interactive decision-making theory and applications based on incomplete linguistic information, director, 2006-2008, ￥170,000;
- Research on big data-driven resource management of whole society in environment and smart health care (Key projects of National Natural Science Foundation of China), principal investigator, 2016-2020, ￥2,661,440;
- Evaluation of economic losses and prevention and control measures of smog pollution in the era of big data (Major Program of the National Social Science Fund of China), principal investigator, 2018-2022, ￥600,000;
- Research on the structure of reverse logistics system of electronic products under network environment, principal investigator, 2000-2002, ￥120,000;
- Biochemical model and its operation mechanism of virtual enterprises, principal investigator, 2005-2007, ￥87,000.

HONORS AND AWARDS:

- Member of AE (Academia Europaea), 2022-;
- Member of EASA (European Academy of Sciences and Arts), 2021-;
- Member of IASCYS (International Academy for Systems and Cybernetic Sciences), 2019-;
- Distinguished Fellow of IETI (International Engineering and Technology Institute), 2022-;
- Fellow of ORS (The Operational Research Society), 2021-;
- Fellow of AAIA (Asia-Pacific Artificial Intelligence Association), 2021-;
- Fellow of VEBLEO, 2021-;
- Fellow of IAAM (International Association of Advanced Materials), 2020-;
- Fellow of IEEE (Institute of Electrical and Electronics Engineers), 2019-;
- Fellow of RSA (Royal Society of Arts), 2019-;
- Fellow of BCS (British Computer Society), 2019-;
- Fellow of IET (Institution of Engineering and Technology), 2019-;
- Fellow of IFSA (International Fuzzy Systems Association), 2017-;
- Highly Cited Researcher in both Computer Science and Engineering, Thomson Reuters

and Clarivate Analytics, 2014-2021;

- Thomson Reuters China Citation Laureates in both Computer Science and Engineering, Thomson Reuters, 2014;

- Natural Science Awards on Science and Technology Award, awarded by Ministry of Education in China, 2019, 2017, 2010, 2007;

- State Council Expert with Special Allowance, and National Mid-Aged Expert with Outstanding Contributions of China, 2015;

- Distinguished Professor of Cheung Kong Scholars Program, awarded by the Ministry of Education of China, 2014-2018;

- Distinguished Young Scholar of the National Natural Science Foundation of China, 2007-2010.

- National Award for Youth in Science and Technology of China, 2007;

- Famous Teacher Award in Teaching and Educating People in Sichuan Province, China, 2019;

- Outstanding Mathematics Achievement Award of Jiangsu Province, China, 2010;

- Ranked 431th, 258th, 193th, 190th in career scientific impact among world's top 100,000 scientists in 2019, 2020, 2021 and 2022 respectively, and ranked 30th in 2019 single year scientific impact among world's top 100,000 scientists, Mendeley Data, Elsevier;

- Ranked 57th among world's top 1000 scientists in Computer Science & Electronics in 2021, and ranked 40th among the World's best scientists in the arena of Computer Science in 2023, Guide2Research (Research.com).

FULL PUBLICATIONS LIST:

Monographs Published by Springer:

- Chenyang Song, **Zeshui Xu***. Techniques of Decision Making, Uncertain Reasoning and Regression Analysis Under the Hesitant Fuzzy Environment and Their Applications, 2021, *Springer* (ISBN 978-981-16-5799-3)

- Xiaoli Tian, **Zeshui Xu***. Fuzzy Decision-making Methods Based on Prospect Theory and Its Application in Venture Capital, 2021, *Springer* (ISBN: 978-981-16-0242-9)

- Peijia Ren, **Zeshui Xu***. Decision-Making Analyses with Thermodynamic Parameters and Hesitant Fuzzy Linguistic Preference Relations, 2021, *Springer* (ISBN: 978-3-030-73252-3)

- Shan Yu, **Zeshui Xu***. Generalized Intuitionistic Multiplicative Fuzzy Calculus Theory and Applications, 2020, *Springer* (ISBN: 978-981-15-5611-1)

- Xunjie Gou, **Zeshui Xu***. Double Hierarchy Linguistic Term Set and Its Extensions: Theory and Applications, 2020, *Springer* (ISBN: 978-3-030-51319-1)

- Zhinan Hao, **Zeshui Xu***, Hua Zhao. Several Intuitionistic Fuzzy Multi-Attribute Decision Making Methods and Their Applications, 2020, *Springer* (ISBN 978-981-15-

3890-2);

- Wei Zhou, **<u>Zeshui Xu</u>***. Qualitative Investment Decision-Making Methods under Hesitant Fuzzy Environments, 2019, *Springer* (ISBN-13: 9783030113483);

- Bahram Farhadinia, **<u>Zeshui Xu</u>***. Information Measures for Hesitant Fuzzy Sets and Their Extensions, 2018, *Springer* (ISBN 978-981-13-3729-1);

- Hang Wang, **<u>Zeshui Xu</u>***. Theory and Approaches of Group Decision Making with Uncertain Linguistic Expressions, 2018, *Springer* (ISBN 978-981-13-3735-2);

- Qian Lei, **<u>Zeshui Xu</u>***. Intuitionistic Fuzzy Calculus, 2017, *Springer* (ISBN 978-3-319-54147-1);

- Xiaolu Zhang, **<u>Zeshui Xu</u>***. Hesitant Fuzzy Methods for Multiple Criteria Decision Analysis, 2017, *Springer* (ISBN 978-3-319-42000-4);

- Huchang Liao, **<u>Zeshui Xu</u>***. Hesitant Fuzzy Decision-Making Methodologies and Applications, 2017, *Springer* (ISBN 978-981-10-3264-6);

- **<u>Zeshui Xu</u>***. Hesitant Fuzzy Sets Theory, 2014, *Springer* (ISBN 978-3-319-04710-2);

- **<u>Zeshui Xu</u>***. Uncertain Multiple Attribute Decision Making: Methods and Applications, 2014, *Springer* (ISBN 978-3-662-45639-2);

- **<u>Zeshui Xu</u>***. Intuitionistic Fuzzy Preference Modeling and Interactive Decision Making, 2013, *Springer* (ISBN 978-3-642-28402-1);

- **<u>Zeshui Xu</u>***, Xiaoqiang Cai. Intuitionistic Fuzzy Information Aggregation: Theory and Applications, 2012, *Springer* (ISBN 978-3-642-29583-6); Science Press (ISBN 978-7-03-033321-6);

- **<u>Zeshui Xu</u>***. Linguistic Decision Making: Theory and Methods, 2012, *Springer* (ISBN 978-3-642-29439-6); Science Press (ISBN 978-7-03-033105-2);

- **<u>Zeshui Xu</u>***. Intuitionistic Fuzzy Aggregation and Clustering, 2012, *Springer* (ISBN 978-3-642-28405-2).

<u>Published SSCI/SCI Indexed Papers</u>

1   **Zeshui Xu***. Intuitionistic fuzzy aggregation operators. *IEEE Transactions on Fuzzy Systems*, 2007, 15(6): 1179-1187. (SCI, ESI)

11 **Zeshui Xu**[*], Ronald R. Yager. Power-geometric operators and their use in group decision making. *IEEE Transactions on Fuzzy Systems*, 2010, 18(1): 94-105. (SCI, ESI**)**

12 **Zeshui Xu**[*]. Intuitionistic fuzzy multi-attribute decision making: An interactive method. *IEEE Transactions on Fuzzy Systems*, 2012, 20(3): 514-525. (SCI)

13 Meimei Xia, **Zeshui Xu**, Huchang Liao. Preference relations based on intuitionistic multiplicative information. *IEEE Transactions on Fuzzy Systems*, 2013, 21(1): 113-133. (SCI, ESI)

14 **Zeshui Xu**[*]. Priority weight intervals derived from intuitionistic multiplicative preference relations. *IEEE Transactions on Fuzzy Systems*, 2013, 21(4): 642-654. (SCI)

15 Bin Zhu, **Zeshui Xu**. Consistency measures for hesitant fuzzy linguistic preference relations. *IEEE Transactions on Fuzzy Systems*, 2014, 22(1): 35-45. (SCI, ESI)

16 **Zeshui Xu**[*], Huchang Liao. Intuitionistic fuzzy analytic hierarchy process. *IEEE Transactions on Fuzzy Systems*, 2014, 22(4): 749-761. (SCI, ESI)

17 Liuhao Chen, **Zeshui Xu**, Xiaohan Yu. Prioritized measure-guided aggregation operators. *IEEE Transactions on Fuzzy Systems*, 2014, 22(5): 1127-1138. (SCI)

18 Huchang Liao, **Zeshui Xu**. Priorities of intuitionistic fuzzy preference relation based on multiplicative consistency. *IEEE Transactions on Fuzzy Systems*, 2014, 22(6): 1669-1681. (SCI, ESI)

19   **Zeshui Xu**[*]. Deviation square priority method for distinct preference structures based on generalized multiplicative consistency. *IEEE Transactions on Fuzzy Systems*, 2015, 23(4): 1164-1180. (SCI)

20   Huchang Liao, **Zeshui Xu**, Xiao-Jun Zeng, José M. Merigó. Framework of group decision making with intuitionistic fuzzy preference information. *IEEE Transactions on Fuzzy Systems*, 2015, 23(4): 1211-1227. (SCI)

21   Huchang Liao, **Zeshui Xu**, Xiao-jun Zeng. Hesitant fuzzy linguistic VIKOR method and its application in qualitative multiple criteria decision making. *IEEE Transactions on Fuzzy Systems*, 2015, 23(5): 1343-1355. (SCI, ESI)

22   Qian Lei, **Zeshui Xu**, Humberto Bustince, Ana Burusco. Definite integrals of Atanassov's intuitionistic fuzzy information. *IEEE Transactions on Fuzzy Systems*, 2015, 23(5): 1519-1533. (SCI)

23   Haifeng Liu, **Zeshui Xu**, Huchang Liao. The multiplicative consistency index of hesitant fuzzy preference relation. *IEEE Transactions on Fuzzy Systems*, 2016, 24(1): 82-93. (SCI)

24   Humberto Bustince Sola, Edurne Barrenechea, Miguel Pagola, Javier Fernandez, **Zeshui Xu**, Benjamin Bedregal, Javier Montero, Hani Hagras, Francisco Herrera, Bernard De Baets. A historical account of types of fuzzy sets and their relationships. *IEEE Transactions on Fuzzy Systems*, 2016, 24(1): 179-194. (SCI, ESI, ESI hot paper)

25   Qian Lei, **Zeshui Xu**. Chain and substitution rules of intuitionistic fuzzy calculus. *IEEE Transactions on Fuzzy Systems*, 2016, 24(3): 519-529. (SCI)

26   Wei Zhou, **Zeshui Xu**. Asymmetric fuzzy preference relations based on the generalized sigmoid scale and their application in decision making with risk appetites. *IEEE Transactions on Fuzzy Systems*, 2016, 24(3): 741-756. (SCI)

27   Qian Lei, **Zeshui Xu**. Relationships between two types of intuitionistic fuzzy definite integrals. *IEEE Transactions on Fuzzy Systems*, 2016, 24(6): 1410-1425 (SCI)

28   Qian Lei, **Zeshui Xu**. A unification of intuitionistic fuzzy calculus theories based on subtraction derivatives and division derivatives. *IEEE Transactions on Fuzzy Systems*, 2017, 25(5): 1023-1040. (SCI)

29   Decui Liang, **Zeshui Xu***, Dun Liu. A new aggregation method-based error analysis for decision-theoretic rough sets and its application in hesitant fuzzy information systems. *IEEE Transactions on Fuzzy Systems*, 2017, 25(6): 1685-1697. (SCI)

30   Zhenghai Ai, **Zeshui Xu**[*], Qian Lei. Fundamental properties with respect to the completeness of intuitionistic fuzzy partially ordered set. *IEEE Transactions on Fuzzy Systems*, 2017, 25(6): 1741-1751. (SCI)

31   Dejian Yu, **Zeshui Xu**[*], Yuhsuan Kao, Chin-Teng Lin. The structure and citation landscape of IEEE Transactions on Fuzzy Systems (1994-2015). *IEEE Transactions on Fuzzy Systems*, 2018, 26(2): 430-442. (SCI, ESI)

32   Zhenghai Ai, **Zeshui Xu**[*]. Multiple definite integrals of intuitionistic fuzzy calculus and isomorphic mappings. *IEEE Transactions on Fuzzy Systems*, 2018, 26(2): 670-680. (SCI)

33   Wei Zhou, **Zeshui Xu**. Probability calculation and element optimization of probabilistic hesitant fuzzy preference relations based on expected consistency. *IEEE Transactions on Fuzzy Systems*, 2018, 26(3): 1367-1378. (SCI, ESI)

34   Zhenghai Ai, **Zeshui Xu**[*]. Line integrals of intuitionistic fuzzy calculus and their properties. *IEEE Transactions on Fuzzy Systems*, 2018, 26(3): 1435-1446. (SCI)

35   Yuling Zhai, **Zeshui Xu**[*], Huchang Liao. Measures of probabilistic interval-valued intuitionistic hesitant fuzzy sets and the application in reducing excessive medical examinations. *IEEE Transactions on Fuzzy Systems*, 2018, 26(3): 1651-1670. (SCI)

36   Zhinan Hao, **Zeshui Xu**[*], Hua Zhao, Hamido Fujita. A dynamic weight determination approach based on the intuitionistic fuzzy Bayesian network and its application to emergency decision-making. *IEEE Transactions on Fuzzy Systems*, 2018, 26(4): 1893-

1907. (SCI)

37 Huchang Liao, Xiaomei Mi, **Zeshui Xu**, Jiuping Xu, Francisco Herrera. Intuitionistic fuzzy analytic network process. *IEEE Transactions on Fuzzy Systems*, 2018, 26(5): 2578-2590. (SCI)

38 Peijia Ren, Bin Zhu, **Zeshui Xu***. Assessments of the impact of the hydropower stations on the environment with a hesitant fuzzy linguistic hyperplane-consistency programming method. *IEEE Transactions on Fuzzy Systems*, 2018, 26(5): 2981-2992. (SCI)

39 Xingli Wu, Huchang Liao, **Zeshui Xu**, Arian Hafezalkotob, Francisco Herrera. Probabilistic linguistic MULTIMOORA: A multi-criteria decision making method based on the probabilistic linguistic expectation function and the improved Borda rule. *IEEE Transactions on Fuzzy Systems*, 2018, 26(6): 3688-3702. (SCI, ESI, ESI hot paper)

40 Zhenghai Ai, **Zeshui Xu***. Intuitionistic fuzzy double integrals and their fundamental properties. *IEEE Transactions on Fuzzy Systems*, 2018, 26(6): 3782-3792. (SCI)

41 Hai Wang, **Zeshui Xu***, Xiao-Jun Zeng, Huchang Liao. Consistency measures of linguistic preference relations with hedges. *IEEE Transactions on Fuzzy Systems*, 2019, 27(2): 372-386. (SCI)

42 Jie Gao, Jennifer Shang, **Zeshui Xu***. Continuities, derivatives and differentials of q-rung orthopair fuzzy functions. *IEEE Transactions on Fuzzy Systems*, 2019, 27(8): 1687-1699. (SCI)

43 Xiaoqin Shu, Zhenghai Ai, **Zeshui Xu***, Jianmei Ye. Integrations of q-rung orthopair fuzzy continuous information. *IEEE Transactions on Fuzzy Systems*, 2019, 27(10): 1974-1985. (SCI)

44 Hangyao Wu, Peijia Ren, **Zeshui Xu***. Hesitant fuzzy linguistic consensus model based on trust-recommendation mechanism for hospital expert consultation. *IEEE Transactions on Fuzzy Systems*, 2019, 27(11): 2227-2241. (SCI)

45 Xinxin Wang, **Zeshui Xu***, Xunjie Gou, Ljiljana Trajkovic. Tracking a maneuvering target by multiple sensors using extended Kalman filter with mested probabilistic-numerical linguistic information. *IEEE Transactions on Fuzzy Systems*, 2020, 28(2): 346-360. (SCI)

46 Wei Zhou, **Zeshui Xu***. Envelopment analysis, preference fusion, and membership improvement of intuitionistic fuzzy numbers. *IEEE Transactions on Fuzzy Systems*, 2020, 28(9): 2119-2130. (SCI)

47 Zhenghai Ai, **Zeshui Xu***, Xiaoqin Shu. Limit theory and differential calculus of intuitionistic fuzzy functions with several variables. *IEEE Transactions on Fuzzy Systems*, 2020, 28(12): 3367-3375. (SCI)

48 Zhenghai Ai, **Zeshui Xu***, Ronald R. Yager, Jianmei Ye. q-rung orthopair fuzzy integrals in the frame of continuous Archimedean t-norms and t-conorms and their application. *IEEE Transactions on Fuzzy Systems*, 2021, 29(5): 996-1007. (SCI)

49 Jing Yang, Shenggang Li, **Zeshui Xu**, Heng Liu, Wei Yao. An understandable way to extend the ordinary linear order on real numbers to a linear order on interval numbers. *IEEE Transactions on Fuzzy Systems*, 2021, 29(9): 2675-2688. (SCI)

50 Jie Gao, **Zeshui Xu***, Yishi Zhang. Integral aggregations of continuous probabilistic hesitant fuzzy sets. *IEEE Transactions on Fuzzy Systems*, 2022, 30(3): 676-686. (SCI)

51 Hai Wang, Huchang Liao, **Zeshui Xu***. Order relations and operations on the set of probabilistic linguistic term sets. *IEEE Transactions on Fuzzy Systems*, 2022, 30(5): 1475 -1485. (SCI)

52 Long Ren, Bin Zhu, **Zeshui Xu**. Continuous exp strategy for consumer preference analysis based on online ratings. *IEEE Transactions on Fuzzy Systems*, 2022, 30(7): 2621 -2633. (SCI)

53 Yuanhang Zheng, **Zeshui Xu***, Xinxin Wang. The fusion of deep learning and fuzzy systems: A state-of-the-art survey. *IEEE Transactions on Fuzzy Systems*, 2022, 30(8): 2783-2799. (SCI)

54 Decui Liang, Yuanyuan Fu, **Zeshui Xu***. Time-varying intuitionistic fuzzy integral for emergency materials demand prediction with case-based reasoning. *IEEE Transactions on Fuzzy Systems*, 2022, 30(9): 3617-3632. (SCI)

55 Decui Liang, Yuanyuan Fu, **Zeshui Xu***, Wanting Tang. Loss function information fusion and decision rule deduction of three-way decisions by construing interval-valued q-Rung Orthopair fuzzy integral. *IEEE Transactions on Fuzzy Systems*, 2022, 30(9): 3645-3660. (SCI)

56 Kai Zhang, Jianhua Dai, **Zeshui Xu**. The criterion-oriented three-way ranking and clustering strategies in fuzzy decision environments. *IEEE Transactions on Fuzzy Systems*, 2022, 30(9): 3841-3856. (SCI)

57 Man Liu, Wei Zhou, **Zeshui Xu**. The dual-fuzzy convolutional neural network to deal with handwritten image recognition. *IEEE Transactions on Fuzzy Systems*, 2022, 30(12): 5225-5236. (SCI)

58 Jiajia Wang, Xueling Ma, **Zeshui Xu**, Jianming Zhan. Regret theory-based three-way decision model in hesitant fuzzy environments and its application to medical decision. *IEEE Transactions on Fuzzy Systems*, 2022, 30(12): 5361-5375. (SCI)

59 Jie Gao, **Zeshui Xu**, Zhilei Liang, Yunshu Mao. Two integral models and applications of hesitant fuzzy information fusion. *IEEE Transactions on Fuzzy Systems*, 2023, 31(1): 25-39. (SCI)

60 Meng Zhao, Yiqi Hu, Song Wu, **Zeshui Xu***. A telemedicine decision-making model for teleconsultation decision support system based on intuitionistic hesitant fuzzy linguistic term sets. *IEEE Transactions on Fuzzy Systems*, 2023, 31(3): 905-918. (SCI)

61 Yun Kang, Bin Yu, **Zeshui Xu**. Interpretable multi-attribute predictive analysis model based on rough fuzzy set and logistic regression. *IEEE Transactions on Fuzzy Systems*, 2023, DOI: 10.1109/TFUZZ.2023.3260843. (SCI)

62 **Zeshui Xu***, Xiaoqiang Cai, Shousheng Liu. Nonlinear programming model integrating different preference structures. *IEEE Transactions on Systems, Man, and Cybernetics-Part A*, 2011, 41(1): 169-177. (SCI)

63 Jiuping Xu, Yanfang Ma, **Zeshui Xu**, A bilevel model for project scheduling in a fuzzy random environment. *IEEE Transactions on Systems, Man, and Cybernetics-Part A*, 2015, 45(10): 1322-1335. (SCI)

64 Yuanhang Zheng, **Zeshui Xu***, Witold Pedrycz. A granular computing-driving hesitant fuzzy linguistic method for supporting large-scale group decision-making. *IEEE Transactions on Systems, Man, and Cybernetics-Part A*, 2022, 52(10): 6048-6060. (SCI)

65 **Zeshui Xu***. Multiple-attribute group decision making with different formats of preference information on attributes. *IEEE Transactions on Systems, Man, and Cybernetics-Part B*, 2007, 37(6): 1500-1511. (SCI)

66 **Zeshui Xu***, Jian Chen. MAGDM linear-programming models with distinct uncertain preference structures. *IEEE Transactions on Systems, Man, and Cybernetics-Part B*, 2008, 38(5): 1356-1370. (SCI)

67 **Zeshui Xu***, Ronald R. Yager. Intuitionistic fuzzy Bonferroni means. *IEEE Transactions on Systems, Man, and Cybernetics-Part B*, 2011, 41(2): 568-578. (SCI, ESI)

68 Bin Zhu, **Zeshui Xu**, Jiuping Xu. Deriving a ranking from hesitant fuzzy preference relations under group decision making. *IEEE Transactions on Cybernetics*, 2014, 44(8): 1328-1337. (SCI)

69 Peijia Ren, **Zeshui Xu**, Zhinan Hao. Hesitant fuzzy thermodynamic method for emergency decision making based on prospect theory. *IEEE Transactions on Cybernetics*, 2017, 47(9): 2531-2543. (SCI)

70 Jie Gao, Zhilei Liang, **Zeshui Xu***. Additive Integrals of q-Rung Orthopair Fuzzy Functions. *IEEE Transactions on Cybernetics*, 2020, 50(10): 4406-4419. (SCI)

71 Xunjie Gou, **Zeshui Xu***, Huchang Liao, Francisco Herrera. Consensus model handling minority opinions and noncooperative behaviors in large-scale group decision-making

under double hierarchy linguistic preference relations. *IEEE Transactions on Cybernetics*, 2021, 51(1): 283-296. (SCI, ESI)

72　Jiang Deng, Jianming Zhan, **Zeshui Xu**, Enrique Herrera-Viedma. Regret-theoretic multi-attribute decision-making model using three-way framework in multi-scale information systems. *IEEE Transactions on Cybernetics*, 2023, 53(6): 3988-4001. (SCI, ESI)

73　Peijia Ren, Zhinan Hao, Xinxin Wang, Xiao-Jun Zeng, **Zeshui Xu***. Decision models based on incomplete hesitant fuzzy linguistic preference relation with application to site section of hydropower stations. *IEEE Transactions on Engineering Management*, 2022, 69(4): 904-915. (SSCI, SCI)

74　Huchang Liao, Zhiying Zhang, **Zeshui Xu**, Audrius Banaitis. A heterogeneous regret-theory-based method with Choquet integral to multi-attribute reverse auction. *IEEE Transactions on Engineering Management*, 2022, 69(5): 2248-2259. (SSCI, SCI)

75　Wei Zhou, Man Liu, **Zeshui Xu**. Evolutionary computation of the generalized hesitant fuzzy envelopment analysis and its application in the contractor selection of green building project. *IEEE Transactions on Engineering Management*, 2021, DOI: 10.1109/ TEM.2021.3098718. (SSCI, SCI)

76　Decui Liang, Yiqi Wu, **Zeshui Xu**. A new coordination service design method for government website considering the kansei needs and the fairness of user groups. *IEEE Transactions on Engineering Management*, 2022, DOI: [10.1109/TEM.2022.3165976](10.1109/TEM.2022.3165976). (SSCI, SCI)

77　Decui Liang, Fangshun Li, Mingwei Wang, **Zeshui Xu**. Two-stage assignment classification model based on an improved AHPSort II with heterogeneous criteria for location selection of electric vehicle charging stations. *IEEE Transactions on Engineering Management*, 2022, DOI: 10.1109/TEM.2022.3180164. (SSCI, SCI)

78　Mingwei Lin, Chao Huang, **Zeshui Xu**, Riqing Chen. Evaluating IoT platforms using integrated probabilistic linguistic MCDM method. *IEEE Internet of Things Journal*, 2020, 7(11): 11195-11208. (SCI, ESI)

79　Mingwei Lin, Jianpeng Zhang, Yubiao Pan, **Zeshui Xu**. CRFTL: Cache reallocation-based page-level flash translation layer for smartphones. *IEEE Transactions on Consumer Electronics*, DOI: 10.1109/TCE.2023.3264217. (SCI)

80　Chengzu Bai, Ren Zhang, **Zeshui Xu**, Baogang Jin, Jian Chen, Shuo Zhang, Longxia Qian. Kernel low-rank entropic component analysis for hyperspectral image classification. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2020, 13: 5682-5693. (SCI)

81　Yubiao Pan, Mingwei Lin, Zhixiong Wu, Huizhen Zhang, **Zeshui Xu**. Caching-aware Garbage Collection to improve performance and lifetime for NAND flash-based SSDs. *IEEE Transactions on Consumer Electronics*, 2021, 67(2): 141-148. (SCI)

82　Yuhan Luo, Mingwei Lin, Yubiao Pan, **Zeshui Xu**. Dual locality-based flash translation layer for NAND flash-based consumer electronics. *IEEE Transactions on Consumer Electronics*. 2022, 68(3): 281-290. (SCI)

83　**Zeshui Xu**, Cuiping Wei. A consistency improving method in the analytic hierarchy process. *European Journal of Operational Research*, 1999, 116(2): 443-449. (SSCI, SCI)

84　**Zeshui Xu***. On consistency of the weighted geometric mean complex judgement matrix in AHP. *European Journal of Operational Research*, 2000, 126(3): 683-687. (SCI)

85　**Zeshui Xu***, Qingli Da. A least deviation method to obtain a priority vector of a fuzzy preference relation. *European Journal of Operational Research*, 2005, 164(1): 206-216. (SCI)

86　**Zeshui Xu***, Jian Chen. Some models for deriving the priority weights from interval fuzzy preference relations. *European Journal of Operational Research*, 2008, 184(1): 266-280. (SCI, ESI)

87　Bin Zhu, **Zeshui Xu***. Stochastic preference analysis in numerical preference relations. *European Journal of Operational Research*, 2014, 237(2): 628-633. (SSCI, SCI)

88 Bin Zhu, **Zeshui Xu**[*]. Analytic hierarchy process-hesitant group decision making. *European Journal of Operational Research*, 2014, 239(3): 794-801. (SSCI, SCI)

89 Bin Zhu, **Zeshui Xu**[*], Ren Zhang, Mei Hong. Generalized analytic network process. *European Journal of Operational Research*, 2015, 244(1): 277-288. (SCI)

90 Bin Zhu, **Zeshui Xu**[*], Ren Zhang, Mei Hong. Hesitant analytic hierarchy process. *European Journal of Operational Research*. 2016, 250(2): 602-614. (SCI)

91 Wei Zhou, **Zeshui Xu**[*]. Generalized asymmetric linguistic term set and its application to qualitative decision making involving risk appetites. *European Journal of Operational Research*, 2016, 254(2): 610-621. (SSCI, SCI)

92 **Zeshui Xu**[*]. An approach based on the uncertain LOWG and induced uncertain LOWG operators to group decision making with uncertain multiplicative linguistic preference relations. *Decision Support Systems*, 2006, 41(2): 488-499. **(**SCI, ESI**)**

93 Shuixia Chen, **Zeshui Xu***, Xunjie Gou, Chenxi Zhang. Prediction of hotel booking cancellations: Integration of machine learning and probability model based on interpretable feature interaction. *Decision Support Systems*, 2023, 170: 113959. (SCI)

94 **Zeshui Xu**[*]. Generalized chi square method for the estimation of weights. *Journal of Optimization Theory and Applications*, 2000, 107(1): 183-192. (SSCI, SCI)

95 Jiuping Xu, Zhibing Wu, **Zeshui Xu**. A multiple attribute group decision making framework for the evaluation of lean practices at logistics distribution centers. *Annals of Operations Research*, 2016, 247(2): 735-757. (SSCI, SCI)

96 Mingwei Wang, Decui Liang, **Zeshui Xu**, Wen Cao. Consensus reaching with the externality effect of social network for three-way group decisions. *Annals of Operations Research*, 2021, DOI: 10.1007/s10479 -020-03875-3. (SCI)

97 Yinrunjie Zhang, Decui Liang, **Zeshui Xu**. Cross-platform hotel evaluation by aggregating multi-website consumer reviews with probabilistic linguistic term set and Choquet integral. *Annals of Operations Research*, 2022, DOI: 10.1007/s10479-022-0507 5-7. (SCI)

98 Chengzu Bai, Ren Zhang, **Zeshui Xu**, Rui Cheng, Baogang Jin, Jian Chen. L1-Norm-Based Kernel Entropy Components. *Pattern Recognition*, 2019, 96: 106990. (SCI)

99 Ronald R. Yager, **Zeshui Xu**. The continuous ordered weighted geometric operator and its application to decision making. *Fuzzy Sets and Systems*, 2006, 157(10): 1393-1402. (SCI)

100 Meimei Xia, **Zeshui Xu**, Jian Chen. Algorithms for improving consistency or consensus of reciprocal [0,1]-valued preference relations. *Fuzzy Sets and Systems*, 2013, 216: 108-133. (SCI)

101 Bin Zhu, **Zeshui Xu**[*]. A fuzzy linear programming method for group decision making with additive reciprocal fuzzy preference relations. *Fuzzy Sets and Systems*, 2014, 246(1): 19-33. (SSCI, SCI)

102 Long Ren, Bin Zhu, **Zeshui Xu**. Data-driven fuzzy preferences analysis from an optimization perspective. *Fuzzy Sets and Systems*, 2019, 377: 85-101. (SCI)

103 Zhenming Ma, **Zeshui Xu**, Zun Wei Fu, Wei Yang. Deriving priorities based on representable uninorms from fuzzy preference relations. *Fuzzy Sets and Systems*, 2023, 458: 201-220. (SCI)

104 **Zeshui Xu**[*]. A method based on linguistic aggregation operators for group decision making with linguistic preference relations. *Information Sciences*, 2004, 166(1-4): 19-30. (SCI, ESI)

105 **Zeshui Xu**[*]. Uncertain linguistic aggregation operators-based approach to multiple attribute group decision making under uncertain linguistic environment. *Information Sciences*, 2004, 168(1-4): 171-184. (SCI, ESI)

106 **Zeshui Xu**[*], Jian Chen. An interactive method for fuzzy multiple attribute group decision making. *Information Sciences*, 2007, 177(1): 248-263. (SCI, ESI)

107 **Zeshui Xu**[*]. Intuitionistic preference relations and their application in group decision making. *Information Sciences*, 2007, 177(11): 2363-2379. (SCI, ESI)

108 **Zeshui Xu**[*]. Group decision making based on multiple types of linguistic preference relations. *Information Sciences*, 2008, 178(2): 452-467. (SCI)

109 **Zeshui Xu**[*], Jian Chen, Junjie Wu. Clustering algorithm for intuitionistic fuzzy sets. *Information Sciences*, 2008, 178(19): 3775-3790. (SCI, ESI)

110 **Zeshui Xu**[*]. A method based on distance measure for interval-valued intuitionistic fuzzy group decision making. *Information Sciences*, 2010, 180(1): 181-190. **(**SCI, ESI)

111 **Zeshui Xu**[*]. Choquet integrals of weighted intuitionistic fuzzy information. *Information Sciences*, 2010, 180(5): 726-736. (SCI, ESI)

112 Serkan Genc, Fatih Emre Boran, Diyar Akay, **Zeshui Xu**. Interval multiplicative transitivity for consistency, missing values and priority weights of interval fuzzy preference relations. *Information Sciences*, 2010, 180(24): 4877-4891. (SCI)

113 **Zeshui Xu**[*], Xiaoqiang Cai. Group consensus algorithms based on preference relations. *Information Sciences*, 2011, 181(1): 150-162. (SCI, ESI)

114 **Zeshui Xu**[*], Meimei Xia. Distance and similarity measures for hesitant fuzzy sets. *Information Sciences*, 2011, 181(11): 2128-2138. (SCI, ESI)

115 Bin Zhu, **Zeshui Xu**[*], Meimei Xia. Hesitant fuzzy geometric Bonferroni means. *Information Sciences*, 2012, 205: 72-85. (SCI, ESI, ESI hot paper)

116 Huchang Liao, **Zeshui Xu**[*], Xiao-Jun Zeng. Distance and similarity measures for hesitant fuzzy linguistic term sets and their application in multi-criteria decision making. *Information Sciences*, 2014, 271: 125-142. (SCI, ESI)

117 Na Chen, **Zeshui Xu**[*]. Hesitant fuzzy ELECTRE II approach: A new way to handle multi-criteria decision making problems. *Information Sciences*, 2015, 292: 175-197. (SCI, ESI)

118 Yuan Jiang, **Zeshui Xu**[*], Xiaohan Yu. Group decision making based on incomplete intuitionistic multiplicative preference relations. *Information Sciences*, 2015, 295: 33-52. (SCI)

119 Hai Wang, **Zeshui Xu**[*]. Some consistency measures of extended hesitant fuzzy linguistic preference relations. *Information Sciences*, 2015, 297: 316-331. (SCI)

120 Liuhao Chen, **Zeshui Xu**[*]. A new fuzzy programming method to derive the priority vector from an interval reciprocal comparison matrix. *Information Sciences*, 2015, 316: 148-162. (SCI)

121 Huchang Liao, **Zeshui Xu**[*], Xiao-Jun Zeng, Dong-Ling Xu. An enhanced consensus reaching process in group decision making with intuitionistic fuzzy preference relations. *Information Sciences*, 2016, 329: 274-286. (SCI, ESI)

122 Qian Lei, **Zeshui Xu**[*], Humberto Bustince, Javier Fernandez. Intuitionistic fuzzy integrals based on Archimedean t-conorm and t-norm. *Information Sciences*, 2016, 327: 57-70. (SCI. ESI)

123 Feng Shen, Jiuping Xu, **Zeshui Xu.** An outranking sorting method for multi-criteria group decision making using intuitionistic fuzzy sets**.** *Information Sciences*, 2016, (334-335): 338-353. (SCI. ESI)

124 Xunjie Gou, **Zeshui Xu**[*], Huchang Liao. Alternative queuing method for multiple criteria decision making with hybrid fuzzy and ranking information. *Information Sciences*, 2016, 357: 144-160. (SCI)

125 Wei Zhou, **Zeshui Xu**[*]. Asymmetric hesitant fuzzy sigmoid preference relations in the analytic hierarchy process. *Information Sciences*, 2016, 358-359: 191-207. (SCI)

126 Hai Wang, **Zeshui Xu**[*], Hamido Fujita, Shousheng Liu. Towards felicitous decision making: An overview on challenges and trends of big data. *Information Sciences*, 2016, 367-368: 747-765. (SCI)

127 Qi Pang, Hai Wang, **Zeshui Xu**[*]. Probabilistic linguistic term sets in multi-attribute

group decision making. *Information Sciences*, 2016, 369, 128-143. (SCI, ESI, ESI hot paper)

128 Xunjie Gou, **Zeshui Xu**[*]. Novel basic operational laws for linguistic terms, hesitant fuzzy linguistic term sets and probabilistic linguistic term sets. *Information Sciences*, 2016, 372: 407-427. (SCI, ESI, ESI hot paper)

129 Qiong Mou, **Zeshui Xu**[*], Huchang Liao. An intuitionistic fuzzy multiplicative best-worst method for multi-criteria group decision-making. *Information Sciences*, 2016, 374: 224-239. (SCI)

130 Decui Liang, **Zeshui Xu**[*], Dun Liu. Three-way decisions with intuitionistic fuzzy decision-theoretic rough sets-based point operators. *Information Sciences*, 2017, 375: 183-201. (SCI, ESI)

131 Yixin Zhang, **Zeshui Xu**[*], Huchang Liao. A consensus process for group decision making with probabilistic linguistic preference relations. *Information Sciences*, 2017, 414: 260-275. (SCI, ESI)

132 Wei Zhou, **Zeshui Xu**[*]. Group consistency and group decision making under uncertain probabilistic hesitant fuzzy preference environment. *Information Sciences*, 2017, 414: 276-288. (SCI)

133 Huchang Liao, Lisheng Jiang, **Zeshui Xu**, Jiuping Xu, Francisco Herrera. A linear programming method for multiple criteria decision making with probabilistic linguistic information. *Information Sciences*, 2017, 415: 341-355. **(**SCI, ESI**)**

134 Zhiliang Ren, **Zeshui Xu***, Hai Wang. Dual hesitant fuzzy VIKOR method for multi-criteria group decision making based on fuzzy measure and new comparison method. *Information Sciences*, 2017, 388-389: 1-16 (SCI, ESI)

135 Xunjie Gou, **Zeshui Xu**[*], Huchang Liao. Hesitant fuzzy linguistic entropy and cross-entropy measures and alternative queuing method for multiple criteria decision making. *Information Sciences*, 2017, 388-389: 225-246. (SCI, ESI, ESI hot paper)

136 Decui Liang, **Zeshui Xu***, Dun Liu. Three-way decisions based on decision-theoretic rough sets with dual hesitant fuzzy information. *Information Sciences*, 2017, 396: 127-143. (SCI)

137 Dejian Yu, **Zeshui Xu**[*], Witold Pedrycz, Wanru Wang. Information Sciences 1968-2016: A retrospective analysis with text mining and bibliometric. *Information Sciences*, 2017, 418: 619-634. (SCI)

138 Peijia Ren, **Zeshui Xu**[*], Huchang Liao, Xiao-Jun Zeng. A thermodynamic method of intuitionistic fuzzy MCDM to assist the hierarchical medical system in China. *Information Sciences*, 2017, 420: 490-504. (SCI)

139 Feng Shen, Xinsong Ma, Zhiyong Li, **Zeshui Xu**[*], Dongliang Cai. An extended intuitionistic fuzzy TOPSIS method based on a new distance measure with an application to credit risk evaluation. *Information Sciences*, 2018, 428: 105-119. (SCI, ESI)

140 Hai Wang, **Zeshui Xu**, Xiao-Jun Zeng. Linguistic terms with weakened hedges: a model for qualitative decision making under uncertainty. *Information Sciences*, 2018, 433-434: 37-54. (SCI)

141 Decui Liang, **Zeshui Xu**[*], Dun Liu, Yao Wu. Method for three-way decisions using ideal TOPSIS solutions at Pythagorean fuzzy information. *Information Sciences*, 2018, 435: 282-295. (SCI, ESI)

142 Zhenming Ma, **Zeshui Xu**[*]. Hyperbolic scales involving appetites-based intuitionistic multiplicative preference relations for group decision making. *Information Sciences*, 2018, 451-452: 310-325. (SSCI, SCI)

143 Wei Zhou, Jin Chen, **Zeshui Xu**[*], Sun Meng. Hesitant fuzzy preference envelopment analysis and alternative improvement. *Information Sciences*, 2018, 465: 105-117. (SCI)

144 Yixin Zhang, **Zeshui Xu**[*], Huchang Liao. An ordinal consistency-based group decision making process with probabilistic linguistic preference relation. *Information Sciences*,

2018, 467: 179-198. (SCI)

145 Yan Yang, Xinxin Wang, **Zeshui Xu**[*]. The multiplicative consistency threshold of intuitionistic fuzzy preference relation. *Information Sciences*, 2019, 477: 349-368. (SCI)

146 Na Zhao, **Zeshui Xu**[*], Zhiliang Ren. Hesitant fuzzy linguistic prioritized superiority and inferiority ranking method and its application in sustainable energy technology evaluation. *Information Sciences*, 2019, 478: 239-257. (SCI)

147 Li Zhang, Jianming Zhan, **Zeshui Xu**. Covering-based generalized IF rough sets with applications to multi-attribute decision-making. *Information Sciences*, 2019, 478: 275-302. (SCI, ESI)

148 Xunjie Gou, Huchang Liao, **Zeshui Xu***, Rui Min, Francisco Herrera. Group decision making with double hierarchy hesitant fuzzy linguistic preference relations: Consistency based measures, index and repairing algorithms and decision model. *Information Sciences*, 2019, 489: 93-112. (SCI)

149 Li Zhang, Jianming Zhan, **Zeshui Xu**, José Carlos R. Alcantud. Covering-based general multigranulation intuitionistic fuzzy rough sets and corresponding applications to multi-attribute group decision-making. *Information Sciences*, 2019, 494: 114-140. (SCI, ESI)

150 Decui Liang, Mingwei Wang, **Zeshui Xu***. Heterogeneous multi-attribute nonadditivity fusion for behavioral three-way decisions in interval type-2 fuzzy environment. *Information Sciences*, 2019, 496: 242-263. (SCI)

151 Decui Liang, Mingwei Wang, **Zeshui Xu***, Dun Liu. Risk appetite dual hesitant fuzzy three-way decisions with TODIM. *Information Sciences*, 2020, 507: 585-605. (SCI, ESI)

152 Jianmei Ye, **Zeshui Xu***, Xunjie Gou. Virtual linguistic trust degree-based evidential reasoning approach and its application to emergency response assessment of railway station. *Information Sciences*, 2020, 513: 341-359. (SCI)

153 Wanying Xie, **Zeshui Xu***, Zhiliang Ren, Enrique-Herrera Viedma*. Restoring incomplete PUMLPRs for evaluating the management way of big data online public opinion. *Information Sciences*, 2020, 516: 72-88. (SCI)

154 Hangyao Wu, **Zeshui Xu***, Peijia Ren. Addressing site selection for earthquake shelters with hesitant multiplicative linguistic preference relation. *Information Sciences*, 2020, 516: 370-387. (SCI)

155 Huchang Liao, Xunjie Gou, Rosa M. Rodriguez, **Zeshui Xu**, Xiao-Jun Zeng, Francisco Herrera. Hesitancy degree-based correlation measures between hesitant fuzzy linguistic term sets and their applications in qualitative multiple criteria decision making: Case study of Sichuan liquor brands management. *Information Sciences*, 2020, 518: 275-292. (SCI)

156 Mingwei Wang, Decui Liang, **Zeshui Xu**. Sequential three-way multiple attribute group decisions with individual attributes and its consensus achievement based on social influence. *Information Sciences*, 2020, 518: 286-308. (SCI)

157 Jin Ye, Jianming Zhan, **Zeshui Xu***. A novel decision-making approach based on three-way decisions in fuzzy information systems. *Information Sciences*, 2020, 541: 362-390. (SCI)

158 Xinxin Wang; **Zeshui Xu***; Shun-Feng Su; Wei Zhou. A comprehensive bibliometric analysis of uncertain group decision making from 1980 to 2019. *Information Sciences*, 2021, 547: 328-353. (SCI)

159 Mingwei Lin, Zheyu Chen, **Zeshui Xu**, Xunjie Gou, Francisco Herrera. Score function basedon concentration degree for probabilistic linguistic term sets: An application to TOPSIS and VIKOR. *Information Sciences*, 2021, 551: 270-290. (SCI, ESI)

160 Jiajia Wang, Xueling Ma, **Zeshui Xu**, Jianming Zhan. Three-way multi-attribute decision making under hesitant fuzzy environments. *Information Sciences*, 2021, 552: 328-351. (SCI)

161 Nana Liu, **Zeshui Xu***, Xiao-Jun Zeng, Peijia Ren. An agglomerative hierarchical

clustering algorithm for linear ordinal rankings. *Information Sciences*, 2021, 557: 170-193. (SCI)

162 Decui Liang, Wen Cao, **Zeshui Xu***, Mingwei Wang. A novel approach of two-stage three-way co-opetition decision for crowdsourcing task allocation scheme. *Information Sciences*, 2021, 559: 191-211. (SCI)

163 Xiaoli Tian, **Zeshui Xu***, Jing Gu, Francisco Herrera. A consensus process based on regret theory with probabilistic linguistic term sets and its application in venture capital. *Information Sciences*, 2021, 562: 347-369. (SCI)

164 Long Ren, Bin Zhu, **Zeshui Xu**. Robust consumer preference analysis with a social network. *Information Sciences*, 2021, 566: 379-400. (SCI)

165 Dejian Yu, Yitong Chen, **Zeshui Xu**. The longitudinal research of Type-2 fuzzy sets domain: from conceptual structure and knowledge diffusion perspectives. *Information Sciences*, 2021, 568: 317-332. (SCI)

166 Xiaomei Mi, Huchang Liao, Xiao-Jun Zeng, **Zeshui Xu**. The two-person and zero-sum matrix game with probabilistic linguistic information. *Information Sciences*, 2021, 570: 487-499. (SCI)

167 Meng Zhao, Linyao Li, **Zeshui Xu**. Study on hotel selection method based on integrating online ratings and reviews from multi-websites. *Information Sciences*, 2021, 572: 460-481. (SCI)

168 Zhinan Hao, Zeshui Xu, Hua Zhao, Zhan, Su. Optimized data manipulation methods for intensive hesitant fuzzy set with applications to decision making. *Information Sciences*, 2021, 580: 55-68. (SCI)

169 Decui Liang, Mingwei Wang, **Zeshui Xu***. A novel approach of three-way decisions with information interaction strategy for intelligent decision making under uncertainty. *Information Sciences*, 2021, 581: 106-135. (SCI)

170 Decui Liang, Yuanyuan Fu, **Zeshui Xu***. Three-way group consensus decision based on hierarchical social network consisting of decision makers and participants. *Information Sciences*, 2022, 585: 289-312. (SCI)

171 Jiajia Wang, Xueling Ma, **Zeshui Xu**, Jianming Zhan. A three-way decision approach with risk strategies in hesitant fuzzy decision information systems. *Information Sciences*, 2022, 588: 293-314. (SCI)

172 Qiumei Wang, Jianhua Dai, **Zeshui Xu**. A new three-way multi-criteria decision-making method with fuzzy complementary preference relations based on additive consistency. *Information Sciences*, 2022, 592: 277-305. (SCI)

173 Dejian Yu, Libo Sheng, **Zeshui Xu**. Analysis of evolutionary process in intuitionistic fuzzy set theory: A dynamic perspective. *Information Sciences*, 2022, 601: 175-188. (SCI)

174 Decui Liang, Bonny Ernestina Linda, Mingwei Wang, **Zeshui Xu***. Hospital health-care delivery quality evaluation in Ghana: An integrated medical triangular fuzzy MULTIMOORA approach. *Information Sciences*. 2022, 605: 99-118. (SCI)

175 Xinxin Wang, Yangyi Li, **Zeshui Xu***, Yuyan Luo. Nested information representation of multi-dimensional decision: An improved PROMETHEE method based on NPLTSs. *Information Sciences*, 2022, 607: 1224-1244. (SCI)

176 Hai Wang, Chao Xu, Rangli Di, **Zeshui Xu***. Analytic hierarchical process with stochastic uncertainty: A case study of governmental audits in China. *Information Sciences*, 2022, 608: 1072-1092. (SCI)

177 Zhu He, Mingwei Lin, **Zeshui Xu**, Zhiqiang Yao. Deconv-transformer (DecT): A histopathological image classification model for breast cancer based on color deconvolution and transformer architecture. *Information Sciences*, 2022, 608: 1093-1112. (SCI)

178 Bin Yu, Ruipeng Cai, Yu Fu, **Zeshui Xu**. A graph convolutional network based on object relationship method under linguistic environment applied to film evaluation. *Information*

Sciences, 2022, 608: 1283-1300. (SCI)

179 Xiaoli Tian, Wanqing Li, **Zeshui Xu***, Gang Kou, Chuming Nie. An endo-confidence-based consensus with hierarchical clustering and automatic feedback in multi-attribute large-scale group decision-making. *Information Sciences*, 2022, 608: 1702-1730. (SCI)

180 Wenyi Zeng, Yuqing Liu, Hanshuai Cui, Rong Ma, **Zeshui Xu**. Interval possibilistic c-means algorithm and its application in image segmentation. *Information Sciences*, 2022, 612: 465-480. (SCI)

181 Jianke Zhang, **Zeshui Xu**, Feng Feng, Ronald R. Yager. Two classes of granular solutions and related optimality conditions for interval type-2 fuzzy optimization. *Information Sciences*, 2022, 612: 974-993. (SCI)

182 Xiaoli Tian, Jiangshui Ma, Liu Li, **Zeshui Xu***, Ming Tang. Development of prospect theory in decision making with different types of fuzzy sets: A state-of-the-art literature review. *Information Sciences*, 2022, 615: 504-528. (SCI)

183 Jianwen Wang, Shiping Wang, Mingwei Lin, **Zeshui Xu**, Wenzhong Guo. Learning speaker-independent multimodal representation for sentiment analysis. *Information Sciences*, 2023, 628: 208-225. (SCI)

184 Lun Guo, Jianming Zhan, **Zeshui Xu**, Jose Carlos R. Alcantud. A consensus measure-based three-way clustering method for fuzzy large group decision making. *Information Sciences*, 2023, 632: 144-163. (SCI)

185 Bin Yu, Hengjie Xie, **Zeshui Xu**. PN-GCN: Positive-negative graph convolution neural network in information system to classification. *Information Sciences,* 2023, 632: 411-423. (SCI)

186 Xiao Hu, Yiqing Chen, Long Ren, **Zeshui Xu**. Investor preference analysis: An online optimization approach with missing information. *Information Sciences*, 2023, 633: 27-40. (SCI)

187 Dejian Yu, Yan Liu, **Zeshui Xu**. Analysis of knowledge evolution in PROMETHEE: A longitudinal and dynamic perspective. *Information Sciences*, 2023, 642: 119151. (SCI)

188 **Zeshui Xu***. Induced uncertain linguistic OWA operators applied to group decision making. *Information Fusion*, 2006, 7(2): 231-238. (SCI, ESI)

189 **Zeshui Xu***. Incomplete linguistic preference relations and their fusion. *Information Fusion*, 2006, 7(3): 331-337. (SCI)

190 **Zeshui Xu***. Dependent uncertain ordered weighted aggregation operators. *Information Fusion*, 2008, 9(2): 310-316. (SCI)

191 Meimei Xia, **Zeshui Xu***. Entropy/cross entropy-based group decision making under intuitionistic fuzzy environment. *Information Fusion*, 2012, 13(1): 31-47. (SCI, ESI)

192 Xiaohan Yu, **Zeshui Xu***. Prioritized intuitionistic fuzzy aggregation operators. *Information Fusion*, 2013, 14(1): 108-116. (SCI, ESI)

193 Xiaolu Zhang, **Zeshui Xu***, Hai Wang. Heterogeneous multiple criteria group decision making with incomplete weight information: A deviation modeling approach. *Information Fusion*, 2015, 25: 49-62. (SCI)

194 **Zeshui Xu***, Na Zhao. Information fusion for intuitionistic fuzzy decision making: An overview. *Information Fusion*, 2016, 28: 10-23. (SCI, ESI)

195 R.M. Rodriguez, B. Bedregal, H. Bustince, Y.C. Dong, B. Farhadinia, C. Kahraman, L. Martínez, V. Torra, Y. Xu, **Z.S. Xu**, F. Herrera. A position and perspective analysis of hesitant fuzzy sets on information fusion in decision making. Towards high quality progress. *Information Fusion*, 2016, 29: 89-97. (SCI, ESI, ESI hot paper)

196 Hai Wang, **Zeshui Xu**. Admissible orders of typical hesitant fuzzy elements and their application in ordered information fusion in multi-criteria decision making. *Information Fusion*, 2016, 29: 98-104 **(SCI, ESI)**

197 Zhinan Hao, **Zeshui Xu***, Hua Zhao, Ren Zhang. Novel intuitionistic fuzzy decision making models in the framework of decision field theory. *Information Fusion*, 2017, 33:

57-70. (SCI)

198 **Zeshui Xu**[*], Hai Wang. On the syntax and semantics of virtual linguistic terms for information fusion in decision making. *Information Fusion*, 2017, 34: 43-48. (SCI, ESI)

199 Shen Zhang, **Zeshui Xu**[*], Yue He. Operations and integrations of probabilistic hesitant fuzzy information in decision making. *Information Fusion*, 2017, 38: 1-11. (SCI)

200 Xunjie Gou, Huchang Liao, **Zeshui Xu**[*], Francisco Herrera. Double hierarchy hesitant fuzzy linguistic term set and MULTIMOORA method: A case of study to evaluate the implementation status of haze controlling measures. *Information Fusion*, 2017, 38: 22-34. (SCI, ESI, ESI hot paper)

201 Rosa M. Rodriguez, **Zeshui Xu**[*], Luis Martinez. Hesitant fuzzy information for information fusion in decision making. *Information Fusion*, 2018, 42: 62-63. (SCI)

202 Hai Wang, **Zeshui Xu**[*], Xiao-Jun Zeng. Hesitant fuzzy linguistic term sets for linguistic decision making: Current developments, issues and challenges. *Information Fusion*, 2018, 43: 1-12. (SCI, ESI)

203 Jordi Montserrat-Adell, **Zeshui Xu**, Xunjie Gou, Nuria Agell. Free double hierarchy hesitant fuzzy linguistic term sets: An application on raking alternatives in GDM. *Information Fusion*, 2019, 47: 45-59. (SCI)

204 Xunjie Gou, **Zeshui Xu***. Managing noncooperative behaviors in large-scale group decision-making with linguistic preference orderings: The application in Internet venture capital. *Information Fusion*, 2021, 69: 142-155. (SCI)

205 **Zeshui Xu**[*]. An automatic approach to reaching consensus in multiple attribute group decision making. *Computers & Industrial Engineering*, 2009, 56(4): 1369-1374. (SSCI, SCI)

206 Meimei Xia, **Zeshui Xu**[*]. Methods for fuzzy complementary preference relations based on multiplicative consistency. *Computers & Industrial Engineering*, 2011, 61(4): 930-935. (SCI)

207 Hua Zhao, **Zeshui Xu**[*], Shousheng Liu, Zhong Wang. Intuitionistic fuzzy MST clustering algorithms. *Computers & Industrial Engineering*, 2012, 62(4): 1130-1140. (SCI)

208 **Zeshui Xu**[*]. Group decision making model and approach based on interval preference orderings. *Computers & Industrial Engineering*, 2013, 64(3): 797-803. (SSCI, SCI)

209 Xiaohan Yu, **Zeshui Xu**, Shousheng Liu. Prioritized multi-criteria decision making based on preference relations. *Computers & Industrial Engineering*, 2013, 66(1): 104-115. (SCI)

210 Xiaolu Zhang, **Zeshui Xu**[*]. Interval programming method for hesitant fuzzy multi-attribute group decision making with incomplete preference over alternatives. *Computers & Industrial Engineering*, 2014, 75: 217-229. (SCI)

211 Wei Zhou, **Zeshui Xu**[*], Minghui Chen. Preference relations based on hesitant-intuitionistic fuzzy information and their application in group decision making. *Computers & Industrial Engineering*, 2015, 87: 163-175. (SCI)

212 Yuan Jiang, **Zeshui Xu**[*], Meng Gao. Methods for ranking intuitionistic multiplicative numbers by distance measures in decision making. *Computers & Industrial Engineering*, 2015, 88: 100-109. (SCI)

213 Peijia Ren, **Zeshui Xu**[*], Huchang Liao. Intuitionistic multiplicative analytic hierarchy process in group decision making. *Computers & Industrial Engineering*, 2016, 101: 513-524. (SCI)

214 Jing Gu, Yue He, Xiongxing Xia, **Zeshui Xu**[*]. An approach to evaluating the spontaneous and contagious credit risk for supply chain enterprises based on fuzzy preference relations. *Computers & Industrial Engineering*, 2017, 106: 361-372. (SSCI, SCI)

215 Qiong Mou, **Zeshui Xu**[*], Huchang Liao. A graph-based group decision making approach

with intuitionistic fuzzy preference relations. *Computers & Industrial Engineering*, 2017, 110: 138-150. (SSCI, SCI)

216 Fanyong Meng, Jie Tang, **Zeshui Xu***. A 0-1 mixed programming model-based method for group decision making with intuitionistic fuzzy preference relations. *Computers & Industrial Engineering*, 2017, 112: 289-304. (SCI)

217 Hangyao Wu, **Zeshui Xu***, Peijia Ren. Hesitant fuzzy linguistic projection model to multi-criteria decision making for hospital decision support systems. *Computers & Industrial Engineering*, 2018, 115: 449-458. (SCI)

218 Yue He, **Zeshui Xu***. A consensus framework with different preference ordering structures and its applications in human resource selection. *Computers & Industrial Engineering*, 2018, 118: 80-88. (SCI)

219 Xunjie Gou, **Zeshui Xu***, Huchang Liao, Francisco Herrera. Multiple criteria decision making based on distance and similarity measures under double hierarchy hesitant fuzzy linguistic environment. *Computers & Industrial Engineering*, 2018, 126: 516-530. (SCI)

220 Decui Liang, Adjei Peter Darko, **Zeshui Xu***, Mingwei Wang. Aggregation of dual hesitant fuzzy heterogenous related information with extended Bonferroni mean and its application to MULTIMOORA. *Computers & Industrial Engineering*, 2019, 135: 156-176. (SCI)

221 Jiajia Chen, **Zeshui Xu***, Changjie Fang, Xinxin Wang, Dongbin Huang. Automotive supply chain networks equilibrium model integrating uncertain payment delay and objective weights. *Computers & Industrial Engineering*, 2020, 150, 106866. (SCI)

222 Jin Ye, Jianming Zhan, **Zeshui Xu**. A novel multi-attribute decision-making method based on fuzzy rough sets. *Computers & Industrial Engineering*, 2021, 155: 107136. (SCI)

223 Ruichen Zhang, Xunjie Gou, **Zeshui Xu***. A multi-attribute decision-making framework for Chinese medicine medical diagnosis with correlation measures under double hierarchy hesitant fuzzy linguistic environment. *Computers & Industrial Engineering*, 2021, 156: 107243. (SCI)

224 Wenting Xue, **Zeshui Xu***, Xiaomei Mi. Solving hesitant fuzzy linguistic matrix game problems for multiple attribute decision making with prospect theory. *Computers & Industrial Engineering*, 2021, 161: 107619. (SCI)

225 Jie Yang, **Zeshui Xu**. Matrix game-based approach for MADM with probabilistic triangular intuitionistic hesitant fuzzy information and its application. *Computers & Industrial Engineering*, 2022, 163: 107787. (SCI)

226 Peijia Ren, Xinxin Wang, **Zeshui Xu***, Xiao-Jun Zeng. Hesitant fuzzy linguistic iterative method for consistency and consensus-driven group decision making. *Computers & Industrial Engineering*, 2022, 173: 108673. (SCI)

227 **Zeshui Xu***. A method for multiple attribute decision making with incomplete weight information in linguistic setting. *Knowledge-Based Systems*, 2007, 20(8): 719-725. (SCI)

228 **Zeshui Xu***. On multi-period multi-attribute decision making. *Knowledge-Based Systems*, 2008, 21(2): 164-171. (SCI)

229 **Zeshui Xu***, Meimei Xia. Induced generalized intuitionistic fuzzy operators. *Knowledge-Based Systems*, 2011, 24(2): 197-209. (SCI, ESI)

230 **Zeshui Xu***. Approaches to multiple attribute group decision making based on intuitionistic fuzzy power aggregation operators. *Knowledge-Based Systems*, 2011, 24(6): 749-760. (SCI, ESI)

231 Meimei Xia, **Zeshui Xu***, Bin Zhu. Some issues on intuitionistic fuzzy aggregation operators based on Archimedean t-conorm and t-norm. *Knowledge-Based Systems*, 2012, 31: 78-88. (SCI, ESI)

232 **Zeshui Xu***. An error-analysis-based method for the priority of an intuitionistic preference relation in decision making. *Knowledge-Based Systems*, 2012, 33: 173-179. (SCI)

233 Xiaohan Yu, **Zeshui Xu**[*]. Directed graph-based multi-agent coalitional decision making. *Knowledge-Based Systems*, 2012, 35: 271-278. (SCI)

234 Na Chen, **Zeshui Xu**[*], Meimei Xia. Interval-valued hesitant preference relations and their applications to group decision making. *Knowledge-Based Systems*, 2013, 37: 528-540. (SCI, ESI)

235 Liuhao Chen, **Zeshui Xu**[*], Xiaohan Yu. The ordered multiplicative modular geometric operator. *Knowledge-Based Systems*, 2013, 39: 144-150. (SCI)

236 Meimei Xia, **Zeshui Xu**, Bin Zhu. Geometric Bonferroni means with their application in multi-criteria decision making. *Knowledge-Based Systems*, 2013, 40: 88-100. (SCI)

237 **Zeshui Xu**[*], Xiaolu Zhang. Hesitant fuzzy multi-attribute decision making based on TOPSIS with incomplete weight information. *Knowledge-Based Systems*, 2013, 52: 53-64. (SCI, ESI, ESI hot paper)

238 Dawei Xu, **Zeshui Xu**[*], Shousheng Liu, Hua Zhao. A spectral clustering algorithm based on intuitionistic fuzzy information. *Knowledge-Based Systems*, 2013, 53: 20-26. (SCI)

239 Xiaolu Zhang, **Zeshui Xu**[*]. The TODIM analysis approach based on novel measured functions under hesitant fuzzy environment. *Knowledge-Based Systems*, 2014, 61: 48-58. (SCI, ESI)

240 Qian Lei, **Zeshui Xu**[*]. Fundamental properties of intuitionistic fuzzy calculus. *Knowledge-Based Systems*, 2015, 76: 1-16. (SCI)

241 Huchang Liao, **Zeshui Xu**[*], Xiao-Jun Zeng, José M. Merigó. Qualitative decision making with correlation coefficients of hesitant fuzzy linguistic term sets. *Knowledge-Based Systems*, 2015, 76: 127-138. (SCI, ESI)

242 Wei Zhou, **Zeshui Xu**[*]. Optimal discrete fitting aggregation approach with hesitant fuzzy information. *Knowledge-Based Systems*, 2015, 78: 22-33. (SCI)

243 **Zeshui Xu**, Huchang Liao. A survey of approaches to decision making with intuitionistic fuzzy preference relations. *Knowledge-Based Systems*, 2015, 80: 131-142. (SCI, ESI, ESI hot paper)

244 Huchang Liao, **Zeshui Xu**[*], Xiao-Jun Zeng. Novel correlation coefficients between hesitant fuzzy sets and their application in decision making. *Knowledge-Based Systems*, 2015, 82: 115-127. (SCI)

245 Jing Gu, Lu Li, **Zeshui Xu**[*], Hamido Fujita. Construction of a technology adoption decision-making model and its extension to understanding herd behavior. *Knowledge-Based Systems*, 2015, 89: 471-486. (SSCI, SCI)

246 Shan Yu, **Zeshui Xu**[*]. Definite integrals of multiplicative intuitionistic fuzzy information in decision making. *Knowledge-Based Systems*, 2016, 100: 59-73. (SCI)

247 Hai Wang, **Zeshui Xu**[*]. Total orders of extended hesitant fuzzy linguistic term sets: Definitions, generations and applications. *Knowledge-Based Systems*, 2016, 107: 142-154. (SCI)

248 Hai Wang, **Zeshui Xu**[*], Witold Pedrycz. An overview on the roles of fuzzy set techniques in big data processing: Trends, challenges and opportunities. *Knowledge-Based Systems*, 2017, 118: 15-30. (SCI)

249 Zhinan Hao, **Zeshui Xu**[*], Hua Zhao, Zhan Su. Probabilistic dual hesitant fuzzy set and its application in risk evaluation. *Knowledge-Based Systems*, 2017, 127: 16-28. (SCI)

250 Yue He, **Zeshui Xu**[*]. A consensus reaching model for hesitant information with different preference structures. *Knowledge-Based Systems*, 2017, 135: 99-112. (SCI)

251 Xiang Cheng, Jing Gu, **Zeshui Xu**. Venture capital group decision-making with interaction under probabilistic linguistic environment. *Knowledge-Based Systems*, 2018, 140: 82-91. (SCI)

252 Dejian Yu, **Zeshui Xu**[*]. Bibliometric analysis of fuzzy theory research in China: A 30-year perspective. *Knowledge-Based Systems*, 2018, 141: 188-199. (SCI)

253 Wei Zhou, **Zeshui Xu**[*]. Portfolio selection and risk investment under the hesitant fuzzy

environment. *Knowledge-Based Systems*, 2018, 144: 21-31. (SCI)

254 Hai Wang, **Zeshui Xu**[*], Xiao-Jun Zeng. Modeling complex linguistic expressions in qualitative decision making: An overview. *Knowledge-Based Systems*, 2018, 144: 174-187. (SCI)

255 Xunjie Gou, **Zeshui Xu**[*], Francisco Herrera. Consensus reaching process for large-scale group decision making with double hierarchy hesitant fuzzy linguistic preference relations. *Knowledge-Based Systems*, 2018, 157: 20-33. (SCI, ESI)

256 Zhiliang Ren, **Zeshui Xu**[*], Hai Wang. Normal wiggly hesitant fuzzy sets and their application to environmental quality evaluation. *Knowledge-Based Systems*, 2018, 159: 286-297. (SCI)

257 Xiaoli Tian, **Zeshui Xu**[*], Hamido Fujita. Sequential funding the venture project or not? A prospect consensus process with probabilistic hesitant fuzzy preference information. *Knowledge-Based Systems*, 2018, 161: 172-184. (SSCI, SCI)

258 Yuanhang Zheng, Yue He, **Zeshui Xu**[*], Witold Pedrycz. Assessment for hierarchical medical policy improvement proposals using hesitant fuzzy linguistic analytic network process. *Knowledge-Based Systems*, 2018, 161: 254-267. (SCI)

259 Wanying Xie, Zhiliang Ren, **Zeshui Xu**, Hai Wang. The consensus of probabilistic uncertain linguistic preference relations and the application on the virtual reality industry. *Knowledge-Based Systems*, 2018, 162: 14-28. (SCI)

260 Jie Gao, Zhilei Liang, Huchang Liao, **Zeshui Xu***. Expected consistency-based emergency decision making with with incomplete probabilistic linguistic preference relations. *Knowledge-Based Systems*, 2019, 176: 15-28. (SCI)

261 Hai Wang, **Zeshui Xu**. An approach to evaluate the methods of determining experts' objective weights based on evolutionary game theory. *Knowledge-Based Systems*, 2019, 182, 104862. (SCI)

262 Xinxin Wang, **Zeshui Xu***, Xunjie Gou. Allocation of fresh water recourses in China with nested probabilistic-numerical linguistic information in multi-objective optimization. *Knowledge-Based Systems*, 2020, 188: 105014. (SCI)

263 Yiping Zeng, **Zeshui Xu***, Yue He, Yu Rao. Fuzzy entropy clustering by searching local border points for the analysis of single-cell RNA-Seq data. *Knowledge-Based Systems*, 2020, 190: 105309. (SCI)

264 Nana Liu, **Zeshui Xu***, Hangyao Wu, Peijia Ren. Conversion-based aggregated algorithms for linear ordinal rankings combined with granular computing. *Knowledge-Based Systems*, 2021, 219: 106880. (SCI)

265 Yixin Zhang, Zhinan Hao, **Zeshui Xu***, Xiao-Jun Zeng, Xinxin Xu. A process-oriented probabilistic linguistic decision-making model with unknown attribute weights. *Knowledge-Based Systems*, 2022, 235: 107594. (SCI)

266 Shuixia Chen, **Zeshui Xu***, Xinxin Wang. Ambient air pollutants concentration prediction during the COVID-19: A method based on transfer learning. *Knowledge-Based Systems*, 2022, 258: 109996. (SCI)

267 Mingwei Lin, Huibing Wang, **Zeshui Xu**, Zhiqiang Yao. TODIM-based multi-criteria decision-making method with hesitant fuzzy linguistic term sets, *Artificial Intelligence Review*, 2020, 53: 3647-3671. (SCI)

268 Bin Yu, **Zeshui Xu**. Advantage matrix: Two novel multi-attribute decision-making methods and their applications. *Artificial Intelligence Review*, 2022, 55(6): 4463-4484. (SCI)

269 Dejian Yu, Tianxing Pan, **Zeshui Xu**, Ronald R. Yager. Exploring the knowledge diffusion and research front of OWA operator: A main path analysis. *Artificial Intelligence Review*, 2023, DOI: 10.1007/s10462-023-10462-y. (SCI)

270 Yuanhang Zheng, **Zeshui Xu***. Deep learning in economics: A systematic and critical review. *Artificial Intelligence Review*, DOI: 10.1007/s10462-022-10272-8. (SCI)

271 Lijun Guo, Zhiqiang Yao, Mingwei Lin, **Zeshui Xu**. Fuzzy TOPSIS-based privacy

measurements in multiple online social networks. *Complex & Intelligent Systems*, 2023, DOI: 10.1007/s40747-023-00991-y. (SCI)

272 Bin Zhu, **Zeshui Xu**[*]. Hesitant fuzzy Bonferroni means for multi-criteria decision making. *Journal of the Operational Research Society*, 2013, 64(12): 1831-1840. (SSCI, SCI)

273 **Zeshui Xu**[*], Meimei Xia. Iterative algorithms for improving consistency of intuitionistic preference relations. *Journal of the Operational Research Society*, 2014, 65(5): 708-722. (SSCI, SCI)

274 Mingwei Lin, **Zeshui Xu**[*]**,** Yuling Zhai, Zhiqiang Yao. Multi-attribute group decision-making under probabilistic uncertain linguistic environment. *Journal of the Operational Research Society*, 2018, 69(2): 157-170. (SSCI, SCI, ESI)

275 Dejian Yu, **Zeshui Xu***. Intuitionistic fuzzy two-sided matching model and its application to personnel-position matching problems. *Journal of the Operational Research Society*, 2020, 71(2): 312-321. (SSCI, SCI, ESI)

276 Decui Liang, Adjei Peter Darko, **Zeshui Xu***, Yinrunjie Zhang. Partitioned fuzzy measure-based linear assignment method for Pythagorean fuzzy multi-criteria decision making with a new likelihood. *Journal of the Operational Research Society*, 2020, 71(5): 831-845. (SSCI, SCI)

277 Decui Liang, Mingwei Wang, **Zeshui Xu***, Xu Chen. [Risk interval-valued three-way decisions model with regret theory and its application to project resource allocation](). *Journal of the Operational Research Society*, 2021, 72(1): 180-199. (SSCI, SCI)

278 Jing Gu, Ying Zheng, Xiaoli Tian, **Zeshui Xu**. A decision-making framework based on prospect theory with probabilistic linguistic term sets. *Journal of the Operational Research Society*, 2021, 72(4): 1-10. (SSCI, SCI)

279 Ling Pan, **Zeshui Xu***, Peijia Ren. DEA cross-efficiency framework for efficiency evaluation with probabilistic linguistic term sets. *Journal of the Operational Research Society*, 2021, 72(5): 1-16. (SSCI, SCI)

280 Bo Li, Yixin Zhang, **Zeshui Xu***. Limited interval-valued probabilistic linguistic term sets in evaluating airline service quality. *Journal of the Operational Research Society*, 2021, 72(6): 1330-1346. (SSCI, SCI)

281 Hai Wang, Huchang Liao, Bing Huang, **Zeshui Xu***. Determining consensus thresholds for group decision making with preference relations. *Journal of the Operational Research Society*, 2021, 72(10): 2290-2300. (SSCI, SCI)

282 Mingwei Wang, Decui Liang, **Zeshui Xu**, Dajun Ye. The evaluation of mobile health Apps: A psychological perception-based probabilistic linguistic belief thermodynamic multiple attribute decision making method. *Journal of the Operational Research Society*, 2021, 72(11): 2596-2610. (SSCI, SCI)

283 Xunjie Gou, **Zeshui Xu***, Huchang Liao, Francisco Herrera. Probabilistic double hierarchy linguistic term set and its use in designing an improved VIKOR method: The Application in Smart Healthcare. *Journal of the Operational Research Society*, 2021, 72(12): 2611-2630. (SSCI, SCI)

284 Decui Liang, Bochun Yi, **Zeshui Xu***. Opinion dynamics based on infectious disease transmission model in the non-connected context of Pythagorean fuzzy trust relationship. *Journal of the Operational Research Society*, 2021, 72(12): 2783-2803. (SSCI, SCI)

285 Cheng Zhang, Huchang Liao, Li Luo, **Zeshui Xu**. Low-carbon tourism destination selection by a thermodynamic feature-based method. *Journal of the Operational Research Society*, 2022, 73(8): 1692-1707. (SSCI, SCI)

286 Mingwei Wang, Decui Liang, **Zeshui Xu**. Consensus achievement strategy of opinion dynamics based on deep reinforcement learning with time constraint. *Journal of the Operational Research Society*, 2022, [73(12)](): 2741-2755. (SSCI, SCI)

287 Meng Zhao, Zeshui Xu, Wenxian Zhao, Daiwei Wei. The two-stage utility function with an aspiration to mass data and uncertain linguistic environment in multiple experts multiple criteria decision making. *Journal of the Operational Research Society*, 2022,

<u>73(11)</u>: 2500-2517. (SSCI, SCI)

288 Decui Liang, Fangshun Lia, Zeshui Xu. A group-based FMEA approach with dynamic heterogeneous social network consensus reaching model for uncertain reliability assessment. *Journal of the Operational Research Society*, 2023, <u>74(1)</u>: 33-47. (SSCI, SCI)

289 Mingwei Wang, Decui Liang, **Zeshui Xu**. Exploring three-way group decisions with consensus evolution network for software ecosystem hierarchical criteria health rating. *Journal of the Operational Research Society*, 2022, <u>https://doi.org/10.1080/01605682.2022.2096507</u>.

290 Wei Zhou, Man Liu, **Zeshui Xu**. Occurrence probability derivation considering different behavior strategies and decision making under the probabilistic hesitant fuzzy environment. *Journal of the Operational Research Society*, 2022, DOI: 10.1080/01605682.2022.2096508. (SSCI)

291 Xiaohan Yu, **Zeshui Xu***. A method based on preference degrees for handling hybrid multiple attribute decision making problems. *Expert Systems with Applications*, 2011, 38(4): 3147-3154. (SCI)

292 Junyi Chai, James N.K. Liu, **Zeshui Xu**. A rule-based group decision model for warehouse evaluation under interval-valued intuitionistic fuzzy environments. *Expert Systems with Applications*, 2013, 40(6): 1959-1970. (SCI)

293 Xiaolu Zhang, **Zeshui Xu***. Hesitant fuzzy QUALIFLEX approach with a signed distance-based comparison method for multiple criteria decision analysis. *Expert Systems with Applications*, 2015, 42(2): 873-884. (SSCI, SCI, ESI)

294 Huchang Liao, **Zeshui Xu***. Approaches to manage hesitant fuzzy linguistic information based on the cosine distance and similarity measures for HFLTSs and their application in qualitative decision making. *Expert Systems with Applications*, 2015, 42(12): 5328-5336. (SCI, ESI, ESI hot paper)

295 Yue He, **Zeshui Xu***. Multi-attribute decision making methods based on reference ideal theory with probabilistic hesitant information. *Expert Systems with Applications*, 2019, 118: 459-469. (SCI)

296 Hai Wang, Dejian Yu, **Zeshui Xu***. A novel process to determine consensus thresholds and its application in probabilistic linguistic group decision-making. *Expert Systems with Applications*, 2021, 168, 114315. (SCI)

297 Yuanhang Zheng, **Zeshui Xu***, Yue He, Yuhang Tian. A hesitant fuzzy linguistic bi-objective clustering method for large-scale group decision-making. *Expert Systems with Applications*, 2021, 168, 114355. (SCI)

298 Bo Li, **Zeshui Xu***, Yixin Zhang. A probabilistic linguistic evaluation-based multi-stage medical scheme selection process related to referral system. *Expert Systems with Applications*, 2021, 170, 114523. (SCI)

299 Peijia Ren, **Zeshui Xu***, Xinxin Wang, Xiao-Jun Zeng. Group decision making with hesitant fuzzy linguistic preference relations based on modified extent measurement. *Expert Systems with Applications*, 2021, 171: 114235. (SCI)

300 Bin Yu, **Zeshui Xu**, Jianhua Dai. A novel multi-attribute decision-making method based on neighborhood approximations and its application. *Expert Systems With Applications*, 2022, 199: 116946. (SCI)

301 Jianmei Ye, **Zeshui Xu***, Xunjie Gou. An adaptive grey-Markov model based on parameters self-optimization with application to passenger flow volume prediction. *Expert Systems With Applications*, 2022, 202: 117302. (SCI)

302 Jian Lin, **Zeshui Xu***, Yan Huang, Riqing Chen. The Choquet integral-based Shapley function for n-person cooperative games with probabilistic hesitant fuzzy coalitions. *Expert Systems With Applications*, 2023, 213: 118882. (SCI)

303 Adjei Peter Darko, Decui Liang, **Zeshui Xu**, Kobina Agbodah, Sandra Obiora. A novel multi-attribute decision-making for ranking mobile payment services using online consumer reviews. *Expert Systems With Applications*, 2023, 213: 119262. (SCI)

304 Xianfeng Huang, Jianming Zhan, **Zeshui Xu**, Hamido Fujita. A prospect-regret theory-based three-way decision model with intuitionistic fuzzy numbers under incomplete multi-scale decision information systems. *Expert Systems With Applications*, 2023, 214: 119144. (SCI)

305 Xiang Li, **Zeshui Xu***, Hai Wang, Enrique Herrera-Viedma. Multi-criteria three-way decisions considering requirements and targets based on qualitative and quantitative information. *Expert Systems With Applications*, 2023, 224: 120039. (SCI)

306 Ling Weng, Jian Lin, Zhangxu Lin, **Zeshui Xu**. A normal cloud model-based decision making method under multi-granular probabilistic linguistic environment for evaluating of wetland ecosystem services. *Expert Systems With Applications*, 2023, 225: 120202. (SCI)

307 Jie Yang, Zhikun Cai, **Zeshui Xu***. The Shapley value based on hesitant fuzzy linguistic comprehensive entropy and its application in noncooperative-cooperative biform game. *Expert Systems With Applications*, 2023, https://doi.org/10.1016/j.eswa.2023.120516. (SCI)

308 Mengke Zhao, Ji Guo, Jian Wu, **Zeshui Xu**. A global optimization feedback model with PSO for large scale group decision making in hesitant fuzzy linguistic environments. *Expert Systems With Applications*, 2023, 228: 120320. (SCI)

309 Huchang Liao, Cheng Zhang, Li Luo, **Zeshui Xu**, Jian-Bo Yang, Dong-Ling Xu. Distance-based intuitionistic multiplicative multiple criteria decision making methods for healthcare management in West China Hospital. *Expert Systems*, 2020, 37(2): 12479. (SCI)

310 Jie Tang, Fanyong Meng, **Zeshui Xu**, Ruiping Yuan. Qualitative hesitant fuzzy group decision making: An additively consistent probability and consensus-based perspective. *Expert Systems*, 2020, 37(3): 12510. (SCI)

311 Meimei Xia, **Zeshui Xu**, Zhong Wang. Multiplicative consistency-based decision support system for incomplete linguistic preference relations. *International Journal of Systems Science*, 2014, 45(3): 625-636. (SCI)

312 Xiaolu Zhang, **Zeshui Xu***. Hesitant fuzzy agglomerative hierarchical clustering algorithms. *International Journal of Systems Science*, 2015, 46(3): 562-576. (SCI)

313 Xinxin Wang, Yurui Chang, **Zeshui Xu***, Zidong Wang, Visakan Kadirkamanathan. 50 Years of international journal of systems science: A review of the past and trends for the future. *International Journal of Systems Science*, 2021, 52(8), 1515-1538. (SCI)

314 Wei Zhou, Danxue Luo, **Zeshui Xu**. Review of fuzzy investment research considering modeling environment and element fusion. *International Journal of Systems Science*, 2022, doi.org/10.1080/ 00207721.2022.2031340. (SCI)

315 **Zeshui Xu***. Consistency of interval fuzzy preference relations in group decision making. *Applied Soft Computing*, 2011, 11(5): 3898-3909. (SCI)

316 Zhong Wang, **Zeshui Xu***, Shousheng Liu, Jian Tang. A netting clustering analysis method under intuitionistic fuzzy environment. *Applied Soft Computing*, 2011, 11(8): 5558-5564. (SCI)

317 **Zeshui Xu***, Meimei Xia. Identifying and eliminating dominated alternatives in multi-attribute decision making with intuitionistic fuzzy information. *Applied Soft Computing*, 2012, 12(4): 1451-1456. (SCI)

318 Yuan Jiang, **Zeshui Xu***, Xiaohan Yu. Compatibility measures and consensus models for group decision making with intuitionistic multiplicative preference relations. *Applied Soft Computing*, 2013, 13(4): 2075-2086. (SCI, ESI)

319 Zhong Wang, **Zeshui Xu***, Shousheng Liu, Zeqing Yao. Direct clustering analysis based on intuitionistic fuzzy implication. *Applied Soft Computing*, 2014, 23: 1-8. (SCI)

320 Yuang Jiang, **Zeshui Xu***. Aggregating information and ranking alternatives in decision making with intuitionistic multiplicative preference relations. *Applied Soft Computing*, 2014, 22: 162-177. (SCI)

321 Xiaolu Zhang, **Zeshui Xu**[*]. Soft computing based on maximizing consensus and fuzzy TOPSIS approach to interval-valued intuitionistic fuzzy group decision making. *Applied Soft Computing*, 2015, 26: 42-56. (SSCI, SCI, ESI)

322 Huchang Liao, **Zeshui Xu**[*]. Consistency of the fused intuitionistic fuzzy preference relation in group intuitionistic fuzzy analytic hierarchy process. *Applied Soft Computing*, 2015, 35: 812-826. (SCI)

323 Hai Wang, **Zeshui Xu**[*]. Interactive algorithms for improving incomplete linguistic preference relations based on consistency measures. *Applied Soft Computing*, 2016, 42: 66-79. (SCI)

324 Peijia Ren, **Zeshui Xu**[*], Xunjie Gou. Pythagorean fuzzy TODIM approach to multi-criteria decision making. *Applied Soft Computing*, 2016, 42: 246-259. (SCI, ESI, ESI hot paper)

325 Yue He, **Zeshui Xu**[*], Jing Gu. An approach to group decision making with hesitant information and its application in credit risk evaluation of enterprises. *Applied Soft Computing*, 2016, 43: 159-169. (SSCI, SCI)

326 Yuling Zhai, **Zeshui Xu**[*], Huchang Liao. Probabilistic linguistic vector-term set and its application in group decision making with multi-granular linguistic information. *Applied Soft Computing*, 2016, 49: 801-816. (SCI)

327 Yixin Zhang, **Zeshui Xu**[*], Hai Wang, Huchang Liao. Consistency-based risk assessment with probabilistic linguistic preference relation. *Applied Soft Computing*, 2016, 49: 817-833. (SCI, ESI)

328 Decui Liang, **Zeshui Xu**[*]. The new extension of TOPSIS method for multiple criteria decision making with hesitant Pythagorean fuzzy sets. *Applied Soft Computing*, 2017, 60: 167-179. (SCI, ESI)

329 Wei Zhou, **Zeshui Xu**[*]. Expected hesitant VaR for tail decision making under probabilistic hesitant fuzzy environment. *Applied Soft Computing*, 2017, 60: 297-311. (SCI)

330 Xue Yang, **Zeshui Xu**[*], Huchang Liao. Correlation coefficients of hesitant multiplicative sets and their applications in decision making and clustering analysis. *Applied Soft Computing*, 2017, 61: 935-946. (SCI)

331 Huchang Liao, Luanyi Yang, **Zeshui Xu**[*]. Two new approaches based on ELECTRE II to solve the multiple criteria decision making problems with hesitant fuzzy linguistic term sets. *Applied Soft Computing*, 2018, 63: 223-234. (SCI, ESI, ESI hot paper)

332 Xiaoli Tian, **Zeshui Xu***, Jing Gu, Enrique Herrera-Viedma. How to select a promising enterprise for venture capitalists with prospect theory under intuitionistic fuzzy circumstance? *Applied Soft Computing*, 2018, 67: 756-763. (SCI)

333 Yuanhang Zheng, **Zeshui Xu**[*], Yue He, Huchang Liao. Severity assessment of chronic obstructive pulmonary disease based on hesitant fuzzy linguistic COPRAS method. *Applied Soft Computing*, 2018, 69: 60-71. (SCI)

334 Miaomiao Wen, Hua Zhao, **Zeshui Xu**[*]. Definite integrals for aggregating continuous interval-valued intuitionistic fuzzy information. *Applied Soft Computing*, 2018, 70: 875-895. (SCI)

335 Zhiliang Ren, **Zeshui Xu**[*], Hai Wang. Multi-criteria group decision-making based on quasi-order for dual hesitant fuzzy sets and professional degrees of decision makers. *Applied Soft Computing*, 2018, 71: 20-35. (SCI)

336 Nana Liu, Yue He, **Zeshui Xu**[*]. A new approach to deal with consistency and consensus issues for hesitant fuzzy linguistic preference relations. *Applied Soft Computing*, 2019, 76: 400-415. (SCI)

337 Decui Liang, Yinrunjie Zhang, **Zeshui Xu**[*], Adam Jamaldeen. Pythagorean fuzzy VIKOR approaches based on TODIM for evaluating Internet banking website quality of Ghanaian banking industry. *Applied Soft Computing*, 2019, 78: 583-594. (SCI)

338 Wenting Xue, **Zeshui Xu***, Hai Wang, Zhiliang Ren. Hazard assessment of landslide dams using the evidential reasoning algorithm with multi-scale hesitant fuzzy linguistic information. *Applied Soft Computing*, 2019, 79: 74-86. (SCI)

339 Chenyang Song, Yixin Zhang, **Zeshui Xu***. An improved structure learning algorithm of Bayesian network based on the hesitant fuzzy information flow. *Applied Soft Computing*, 2019, 82: 105549. (SCI)

340 Ming Tang, Yilu Long, Huchang Liao, **Zeshui Xu**. Inclusion measures of probabilistic linguistic term sets and their application in classifying cities in the Economic Zone of Chengdu Plain. *Applied Soft Computing*, 2019, 82: 105572. (SCI)

341 Wei Zhou, **Zeshui Xu***. Hesitant fuzzy linguistic portfolio model with variable risk appetite and its application in the investment ratio calculation. *Applied Soft Computing*, 2019, 84: 105719. (SCI)

342 Xindi Wang, Xunjie Gou, **Zeshui Xu***. Assessment of traffic congestion with ORESTE method under double hierarchy hesitant fuzzy linguistic environment. *Applied Soft Computing*, 2020, 86: 105864. (SCI)

343 Lina Wang, Hai Wang, **Zeshui Xu***, Zhiliang Ren. A bi-projection model based on linguistic terms with weakened hedges and its application in risk allocation. *Applied Soft Computing*, 2020, 87: 105996. (SCI)

344 Cheng Zhang, Huchang Liao, Li Luo, **Zeshui Xu**. Distance-based consensus reaching process for group decision making with intuitionistic multiplicative preference relations. *Applied Soft Computing*, 2020, 88: 106045. (SCI)

345 Wanying Xie, **Zeshui Xu***, Zhiliang Ren, Enrique Herrera Viedma. A new multi-criteria decision model based on incomplete dual probabilistic linguistic preference relations. *Applied Soft Computing*, 2020, 91: 106237. (SCI)

346 Yuling Zhai, **Zeshui Xu***. Managing personalized individual semantic with improved vector expression in multi-granularity linguistic group decision making. *Applied Soft Computing*, 2020, 92: 106334. (SCI)

347 Decui Liang, Xin He, **Zeshui Xu**. Multi-attribute dynamic two-sided matching method of talent sharing market in incomplete preference ordinal environment. *Applied Soft Computing*, 2020, 93: 106427. (SCI)

348 Dejian Yu, **Zeshui Xu***, Witold Pedrycz. Bibliometric analysis of rough sets research. *Applied Soft Computing*, 2020, 94: 106467. (SCI)

349 Xiaoyi Mo, Hua Zhao, **Zeshui Xu***. Feature-based hesitant fuzzy aggregation methods for satisfaction with life scale. *Applied Soft Computing*, 2020, 94: 106493. (SCI)

350 Zhinan Hao, **Zeshui Xu***, Hua Zhao, Ren Zhang. The context-based distance measure for intuitionistic fuzzy set with application in marine energy transportation route decision making. *Applied Soft Computing*, 2021, 101: 107044. (SCI)

351 Yixin Zhang, Zhinan Hao, **Zeshui Xu***, Huchang Liao. Dynamic assessment of Internet public opinions based on the probabilistic linguistic Bayesian network and Prospect theory. *Applied Soft Computing*, 2021, 106: 107359. (SCI)

352 Hangyao Wu, Peijia Ren, **Zeshui Xu***. Promoting the physician-patient consensus with a hesitant fuzzy linguistic consensus method based on betweenness relation. *Applied Soft Computing*, 2022, 124: 108979. (SCI)

353 Jiajia Wang, Xueling Ma, **Zeshui Xu**, Witold Pedrycz, Jianming Zhan. A three-way decision method with prospect theory to multi-attribute decision-making and its applications under hesitant fuzzy environments. *Applied Soft Computing*, 2022, 126: 109283. (SCI)

354 Xiang Li, **Zeshui Xu***, Hai Wang, Enrique Herrera-Viedma, Osman Taylan. Classification of the wind turbine components based on importance degrees: A three-way decision perspective. *Applied Soft Computing*, 2023, 131: 109754. (SCI)

355 Ming Li, Xinxin Wang, **Zeshui Xu***. Purchasing decision of machine tool by exploiting uncertain information in nested probabilistic linguistic model. *Applied Soft Computing*,

2023, 139: 110222. (SCI)

356 Nana Liu, **Zeshui Xu***, Hangyao Wu. Decision field theory-combined multi-attribute group decision-making method for incomplete linear ordinal ranking. *Applied Soft Computing*, 2023, 140: 110056. (SCI)

357 Zhinan Hao, **Zeshui Xu***, Hua Zhao, Lou Yang. Risk assessment model with probabilistic linguistic fuzzy inference methods for maritime piracy crime and applications . *Applied Soft Computing*, 2023, 140: 110262. (SCI)

358 Dejian Yu, Anran Fang, **Zeshui Xu**. The knowledge trajectory and thematic evolution of the rough sets research: A main path and scientific mapping analysis. *Applied Soft Computing*, 2023, 142: 110364. (SCI)

359 Kun Chao, Hua Zhao, **Zeshui Xu**, Feng Cui. Robust hesitant fuzzy partitional clustering algorithms and their applications in decision making. *Applied Soft Computing*, 2023, DOI: 10.1016/j.asoc.2023.110212. (SCI)

360 Wei Zhou, Yi Lu, Man Liu, **Zeshui Xu**. Hesitant convolutional neural networks and intelligent drive algorithm fused subjective guidance. *Applied Soft Computing*, 2023, DOI: 10. 1016/j.asoc.2023.110477. (SCI)

361 Bahram Farhadinia, **Zeshui Xu**. Novel hesitant fuzzy linguistic entropy and cross-entropy measures in multiple criteria decision making. *Applied Intelligence*, 2018, 48(11): 3915-3927. (SCI)

362 Dejian Yu, **Zeshui Xu***, Hamido Fujita. Bibliometric analysis on the evolution of applied intelligence. *Applied Intelligence*, 2019, 49(2): 449-462. (SCI)

363 Xinxin Wang, **Zeshui Xu***, Xunjie Gou. Nested probabilistic-numerical linguistic term sets in two-stage multi-attribute group decision making. *Applied Intelligence*, 2019, 49: 2582-2602. (SCI)

364 Chenyang Song, **Zeshui Xu***, Yixin Zhang, Xinxin Wang. Dynamic hesitant fuzzy Bayesian network and its application in the optimal investment port decision making problem of "21st Century Maritime Silk Road". *Applied Intelligence*, 2020, 50: 1846-1858. (SCI)

365 Wei Yang, Seong Tae Jhang, Shaoguang Shi, **Zeshui Xu**, Zhenming Ma. A novel additive consistency for intuitionistic fuzzy preference relations in group decision making. *Applied Intelligence*, 2020, 50: 4342-4356. (SCI)

366 Ruichen Zhang, **Zeshui Xu***, Xunjie Gou. An integrated method for multi-criteria decision-making based on the best-worst method and Dempster-Shafer evidence theory under double hierarchy hesitant fuzzy linguistic environment. *Applied Intelligence*, 2021, 51: 713-735. (SCI)

367 Wenting Xue, **Zeshui Xu***, Xiao-Jun Zeng. Solving matrix games based on Ambika method with hesitant fuzzy information and its application in the counter-terrorism issue. *Applied Intelligence*, 2021, 51: 1227-1243. (SCI)

368 Zijing Ge, Xinxin Wang, **Zeshui Xu***. A novel order evaluation model with nested probabilistic-numerical linguistic information applied to traditional order grabbing mode. *Applied Intelligence*, 2021, 51: 4470-4489. (SCI)

369 Ripeng Huang, Shaojian Qu, Xiaoguang Yang, Fengmin Xu, **Zeshui Xu**, Wei Zhou. Sparse portfolio selection with uncertain probability distribution. *Applied Intelligence*, 2021, 51(10): 6665-6684. (SCI)

370 Jie Yang, **Zeshui Xu***, Yongwu Dai. Simple noncooperative games with intuitionistic fuzzy information and application in ecological management. *Applied Intelligence*, 2021, 51(10): 6685-6697. (SCI)

371 Chenyang Song, Liguo Wang, Jian Hou, **Zeshui Xu***, Yinhua Huang. The optimized GRNN based on the FDS-FOA under the hesitant fuzzy environment and its application in air quality index prediction. *Applied Intelligence*, 2021, 51(11): 8365-8376. (SCI)

372 Meng Zhao, Xiaoran Wang, **Zeshui Xu***, Mei Lin. A PL-MCDM method based on the decision-making reliability of multi-group for patients with chronic diseases requiring

downward referral. *Applied Intelligence*, 2022, 52(3): 2655-2670. (SCI)

373 Xindi Wang, Xunjie Gou, **Zeshui Xu***. A Continuous interval-valued double hierarchy linguistic GLDS method and its application in performance evaluation of bus companies. *Applied Intelligence*, 2022, 52(4): 4511-4526. (SCI)

374 Wei Zhou, Man Liu, **Zeshui Xu**, Xunjie Gou, Enrique Herrera-Viedma. Global fusion of the multiple order relations and hesitant fuzzy decision analysis. *Applied Intelligence*, 2022, 52(6): 6866-6888. (SCI)

375 Xiaoyu Wang, Hai Wang, **Zeshui Xu***, Zhiliang Ren. Green supplier selection based on probabilistic dual hesitant fuzzy sets: A process integrating best worst method and superiority and inferiority ranking. *Applied Intelligence*, 2022, 52(7): 8279-8301. (SCI)

376 Yue He, **Zeshui Xu***, Nana Liu. Research on K-medoids algorithm with probabilistic-based expressions and its applications. *Applied Intelligence*, 2022, 52(10): 12016-12033. (SCI)

377 **Zeshui Xu***, Tiantian Lei, Yong Qin. An overview of probabilistic preference decision-making based on bibliometric analysis. *Applied Intelligence*, 2022, 52(13): 15368-15386. (SCI)

378 Chen Jin, **Zeshui Xu***, Hai Wang, Xiaojun Zeng. Uncertain linguistic terms with weakened hedges for multi-granular linguistic decision making with its application to evaluating communication technologies. *Applied Intelligence*, 2022, 52(14): 16758-16774. (SCI)

379 Huantian Xie, Zhenming Ma, **Zeshui Xu**, Zunwei Fu, Wei Yang. Novel consistency and consensus of generalized intuitionistic fuzzy preference relations with application in group decision making. *Applied Intelligence*, 2022, 52(14): 16832-16851. (SCI)

380 Yang Li, **Zeshui Xu***. A bibliometric analysis and basic model introduction of opinion dynamics. *Applied Intelligence*, 2022, DOI: 10.1007/s10489-022-04368-5. (SCI)

381 Chonghui Zhang, Zixu Guo, **Zeshui Xu**, Huanhuan Jin. Optimal electricity distribution of 'three innovations' manufacturing enterprises under China's peak carbon strategy. *Applied Intelligence*, 2022, DOI: 10.1007/s10489-022-04143-6. (SCI)

382 Yun Kang, Bin Yu, Jianhua Dai, **Zeshui Xu**. A novel approach to multi-attribute predictive analysis based on rough fuzzy sets. *Applied Intelligence*, 2022, 10.1007/s10489-022-04360-z. (SCI)

383 Yue He, Dongling Xu, Jianbo Yang, **Zeshui Xu***, Nana Liu. A reference ideal model with evidential reasoning for probabilistic-based expressions. *Applied Intelligence*, 2023, DOI: 10.1007/s10489-023-04653-x. (SCI)

384 **Zeshui Xu***, Jian Chen. Group decision-making procedure based on incomplete reciprocal relations. *Soft Computing*, 2008, 12(6): 515-521. (SCI)

385 Huchang Liao, **Zeshui Xu***. Extended hesitant fuzzy hybrid weighted aggregation operators and their application in decision making. *Soft Computing*, 2015, 19(9): 2551-2564. (SCI, ESI, ESI hot paper)

386 Peijia Ren, **Zeshui Xu**, Hua Zhao, Jiuping Xu. Simplified interval-valued intuitionistic fuzzy integrals and their use in park siting *Soft Computing*, 2016, 20(11): 4377-4393. (SCI)

387 Hua Zhao, **Zeshui Xu***, Hai Wang, Shousheng Liu. Hesitant fuzzy multi-attribute decision-making based on the minimum deviation method. *Soft Computing*, 2017, 21(12): 3439-3459. (SSCI, SCI)

388 Xunjie Gou, **Zeshui Xu***, Huchang Liao. Multiple criteria decision making based on Bonferroni means with hesitant fuzzy linguistic information. *Soft Computing*, 2017, 21(21): 6515-6529. (SCI, ESI, ESI hot paper)

389 Miaomiao Wen, Hua Zhao, **Zeshui Xu***. Hesitant fuzzy Lukasiewicz implication operation and its application to alternatives' sorting and clustering analysis. *Soft Computing*, 2019, 23(2): 393-405. (SCI)

390 Fanyong Meng, Jie Tang, **Zeshui Xu***. Exploiting the priority weights from interval

linguistic fuzzy preference relations. *Soft Computing*, 2019, 23(2): 583-597. (SCI, ESI)

391 Xunjie Gou, **Zeshui Xu***, Huchang Liao. Group decision making with compatibility measures of hesitant fuzzy linguistic preference relations. *Soft Computing*, 2019, 23: 1511-1527. (SCI, ESI)

392 Yixin Zhang, **Zeshui Xu***, Huchang Liao. Water security evaluation based on the TODIM method with probabilistic linguistic term set. *Soft Computing*, 2019, 23(15): 6215-6230. (SCI)

393 Qiong Mou, **Zeshui Xu***, Huchang Liao, Zhinan Hao. Two regression methods for hesitant multiplicative preference relations with different consistencies. *Soft Computing*, 2019, 23(16): 7029-7044. (SCI)

394 Shen Zhang, **Zeshui Xu***, Hangyao Wu. Fusions and preference relations based on probabilistic interval-valued hesitant fuzzy information in group decision making. *Soft Computing*, 2019, 23(17): 8291-8306. (SCI)

395 Bahram Farhadinia, **Zeshui Xu**. A novel distance-based multiple attribute decision making with hesitant fuzzy sets. *Soft Computing*, 2020, 24: 5005-5017. (SCI)

396 Wanying Xie, **Zeshui Xu***, Zhiliang Ren, Enrique Herrera-Viedma. The probe for the weighted dual probabilistic linguistic correlation coefficient to invest an artificial intelligence project. *Soft Computing*, 2020, 24: 15389-15408. (SCI)

397 Wei Yang, Seong Tae Jhang, Zunwei Fu, **Zeshui Xu**, Zhenming Ma. A novel method to derive the intuitionistic fuzzy priority vectors from intuitionistic fuzzy preference relations. *Soft Computing*, 2021, 25: 147-159. (SCI)

398 Bahram Farhadinia, **Zeshui Xu***. Developing the comparison techniques of probabilistic hesitant fuzzy elements in multiple criteria decision making. *Soft Computing*, 2021, 25: 331-342. (SCI)

399 Nana Liu, **Zeshui Xu***, Hangyao Wu, Peijia Ren. Integrating prospect theory with variable reference point into the conversion-based framework for linear ordinal ranking aggregation. *Soft Computing*, 2022, 26(21): 11713-11732. (SCI)

400 Ming Liu, Hua Zhao, **Zeshui Xu**, Feng Cui. A novel projection-based distance measure for interval-valued intuitionistic multiplicative clustering algorithm. *Soft Computing*, 2023, 27: 2369-2383. (SCI)

401 Chenyang Song, **Zeshui Xu***, Yixin Zhang, Bo Li. Environmental quality evaluation based on the TODIM method with normal wiggly hesitant fuzzy set. *Soft Computing*, 2023, 27(12): 8161-8173. (SCI)

402 Jinglin Xiao, **Zeshui Xu***, Xinxin Wang. An improved MULTIMOORA with CRITIC weights based on new equivalent transformation functions of nested probabilistic linguistic term sets. *Soft Computing*, 2023, DOI: 10.1007/s00500-023-08218-5. (SCI)

403 Na Chen, **Zeshui Xu***, Meimei Xia. Correlation coefficients of hesitant fuzzy sets and their applications to clustering analysis. *Applied Mathematical Modelling*, 2013, 37(4): 2197-2211. (SCI, ESI)

404 Meimei Xia, **Zeshui Xu**. Group decision making based on intuitionistic multiplicative aggregation operators. *Applied Mathematical Modelling*, 2013, 37(7): 5120-5133. (SCI)

405 Meimei Xia, **Zeshui Xu***. Interval weight generation approaches for reciprocal relations. *Applied Mathematical Modelling*, 2014, 38(3): 828-838. (SCI)

406 **Zeshui Xu***, Qingli Da. The uncertain OWA operator. *International Journal of Intelligent Systems*, 2002, 17(6): 569-575. (SCI)

407 **Zeshui Xu***, Qingli Da. The ordered weighted geometric averaging operators. *International Journal of Intelligent Systems*, 2002, 17(7): 709-716. (SCI)

408 **Zeshui Xu***, Qingli Da. An overview of operators for aggregating information. *International Journal of Intelligent Systems*, 2003, 18(9): 953-969. (SCI, ESI)

409 **Zeshui Xu***. An overview of methods for determining OWA weights. *International Journal of Intelligent Systems*, 2005, 20(8): 843-865. (SCI, ESI)

410 **Zeshui Xu**[*]. A C-OWA operator-based approach to decision making with interval fuzzy preference relation. *International Journal of Intelligent Systems*, 2006, 21(12): 1289-1298. (SCI)

411 **Zeshui Xu**[*]. Fuzzy harmonic mean operators. *International Journal of Intelligent Systems*, 2009, 24(2): 152-172. (SCI)

412 Hua Zhao, **Zeshui Xu**[*], Mingfang Ni, Shousheng Liu. Generalized aggregation operators for intuitionistic fuzzy sets. *International Journal of Intelligent Systems*, 2010, 25(1): 1-30. (SCI, ESI)

413 **Zeshui Xu**[*], Xiaoqiang, Cai. Nonlinear optimization models for multiple attribute group decision making with intuitionistic fuzzy information. *International Journal of Intelligent Systems*, 2010, 25(6): 489-513. (SCI)

414 Meimei Xia, **Zeshui Xu**[*]. Generalized point operators for aggregating intuitionistic fuzzy information. *International Journal of Intelligent Systems*, 2010, 25(11): 1061-1080. (SCI)

415 Xiaohan Yu, **Zeshui Xu**[*], Qi Chen. A game model based on multi-attribute aggregation. *International Journal of Intelligent Systems*, 2011, 26(4): 323-339. (SCI)

416 **Zeshui Xu**[*], Meimei Xia. On distance and correlation measures of hesitant fuzzy information. *International Journal of Intelligent Systems*, 2011, 26(5): 410-425. (SCI, ESI)

417 **Zeshui Xu**[*], Xiaoqiang Cai, Eulalia Szmidt. Algorithms for estimating missing elements of incomplete intuitionistic preference relations. *International Journal of Intelligent Systems*, 2011, 26(9): 787-813. (SCI)

418 Meimei Xia, **Zeshui Xu**[*], Bin Zhu. Generalized intuitionistic fuzzy Bonferroni means. *International Journal of Intelligent Systems*, 2012, 27(1): 23-47. (SCI)

419 Xiaohan Yu, **Zeshui Xu**[*], Shousheng Liu, Qi Chen. Multicriteria decision making with 2-dimension linguistic aggregation techniques. *International Journal of Intelligent Systems*, 2012, 27(6): 539-562. (SSCI, SCI)

420 **Zeshui Xu**[*], Meimei Xia. Hesitant fuzzy entropy and cross-entropy and their use in multiattribute decision-making. *International Journal of Intelligent Systems*, 2012, 27(9): 799-822. **(**SCI, ESI)

421 Zhao Zhang, **Zeshui Xu**[*]. On continuity of ordered aggregation operators. *International Journal of Intelligent Systems*, 2013, 28(4): 307-318. (SCI)

422 Na Zhao, Cuiping Wei, **Zeshui Xu**. Sensitivity analysis of multiple criteria decision making method based on the OWA Operator. *International Journal of Intelligent Systems*, 2013, 28(11): 1124-1139. (SCI)

423 Xiaohan Yu, **Zeshui Xu**[*], Shousheng Liu. Generalized prioritized multicriteria aggregation. *International Journal of Intelligent Systems*, 2013, 28(12): 1141-1161. (SCI)

424 Liuhao Chen, **Zeshui Xu**[*], Xiaohan Yu. Weakly prioritized measure aggregation in prioritized multicriteria decision making. *International Journal of Intelligent Systems*, 2014, 29(5): 439-461. (SCI)

425 Francisco Herrera, Luis Martinez, Vicenc Torra, **Zeshui Xu**. Hesitant fuzzy sets: An emerging tool in decision making. *International Journal of Intelligent Systems*, 2014, 29(6): 493-494. (SCI)

426 Rosa Ma Rodriguez, Luis Martinez, Vicenç Torra, **Zeshui Xu**, Francisco Herrera. Hesitant fuzzy sets: State of the art and future directions. *International Journal of Intelligent Systems*, 2014, 29(6): 495-524. (SCI, ESI, ESI hot paper)

427 Huchang Liao, **Zeshui Xu**[*]. Intuitionistic fuzzy hybrid weighted aggregation operators. *International Journal of Intelligent Systems*, 2014, 29(11), 971-993. (SCI)

428 Xiaolu Zhang, **Zeshui Xu**[*]. Extension of TOPSIS to multiple criteria decision making with Pythagorean fuzzy sets. *International Journal of Intelligent Systems*, 2014, 29(12): 1061-1078. (SCI, ESI)

429 Qian Lei, **Zeshui Xu**[*]. Derivative and differential operations of intuitionistic fuzzy

numbers. *International Journal of Intelligent Systems*, 2015, 30(4): 468-498. (SCI)

430 Na Zhao, **Zeshui Xu**[*], Fengjun Liu. Uncertainty measures for hesitant fuzzy information. *International Journal of Intelligent Systems*, 2015, 30(7): 818-836. (SCI)

431 Na Zhao, **Zeshui Xu**[*], Zhiliang Ren. On typical hesitant fuzzy prioritized "or" operator in multi-attribute decision making. *International Journal of Intelligent Systems*, 2016, 31(1): 73-100 (SCI)

432 Xunjie Gou, **Zeshui Xu**[*], Peijia Ren. The properties of continuous Pythagorean fuzzy information. *International Journal of Intelligent Systems*, 2016, 31(5): 401-424. (SCI, ESI)

433 Yue He, **Zeshui Xu**[*] Error analysis methods for group decision making based on hesitant fuzzy preference relation. *International Journal of Intelligent Systems*, 2016, 31(11): 1104-1128 **(**SSCI, SCI**)**

434 Zhenming Ma, **Zeshui Xu**[*]. Symmetric Pythagorean fuzzy weighted geometric/averaging operators and their application in multicriteria decision-making problems. *International Journal of Intelligent Systems*, 2016, 31(12): 1198-1219. (SCI, ESI)

435 Shen Zhang, **Zeshui Xu**[*]. Infinite intuitionistic fuzzy series and product. *International Journal of Intelligent Systems*, 2017, 32(6) 645-662. (SCI)

436 Decui Liang, **Zeshui Xu**[*], Adjei Peter Darko. Projection model for fusing the information of Pythagorean fuzzy multicriteria group decision making based on geometric Bonferroni mean. *International Journal of Intelligent Systems*, 2017, 32(9): 966-987. (SCI, ESI)

437 Wenting Xue, **Zeshui Xu**[*], Xiaolu Zhang, Xiaoli Tian. Pythagorean fuzzy LINMAP method based on the entropy theory for railway project investment decision making. *International Journal of Intelligent Systems*, 2018, 33(1): 93-125. (SCI, ESI)

438 Wei Zhou, **Zeshui Xu**[*]. Extended intuitionistic fuzzy sets based on the hesitant fuzzy membership and their application in decision making with risk preference. *International Journal of Intelligent Systems*, 2018, 33(2): 417-443. (SCI)

439 Decui Liang, Yinrunjie Zhang, **Zeshui Xu**[*], Adjei Peter Darko. Pythagorean fuzzy Bonferroni mean aggregation operator and its accelerative calculating algorithm with the multithreading. *International Journal of Intelligent Systems*, 2018, 33(3): 615-633. (SCI, ESI)

440 Decui Liang, Adjei Peter Darko, **Zeshui Xu**[*]. Interval-valued Pythagorean fuzzy extended Bonferroni mean for dealing with heterogenous relationship among attributes. *International Journal of Intelligent Systems*, 2018, 33: 1381-1411. **(**SCI**)**

441 Decui Liang, Adjei Peter Darko, **Zeshui Xu**[*], Wei Quan. The linear assignment method for multi-criteria group decision making base on interval-valued Pythagorean fuzzy Bonferroni mean. *International Journal of Intelligent Systems*, 2018, 33: 2101-2138. (SCI)

442 Mingwei Lin, Huibing Wang, **Zeshui Xu**[*], Zhiqiang Yao, Jinli Huang. Clustering algorithms based on correlation coefficients for probabilistic linguistic term sets. *International Journal of Intelligent Systems*, 2018, 33(12): 2402-2424. (SCI)

443 Wei Zhou, **Zeshui Xu**[*]. Score-hesitation trade-off and portfolio selection under intuitionistic fuzzy environment. *International Journal of Intelligent Systems*, 2019, 34(2): 325-341. (SSCI, SCI)

444 Chenyang Song, Hua Zhao, **Zeshui Xu**[*], Zhinan Hao. Interval-valued probabilistic hesitant fuzzy set and its application in Arctic Geopolitical risk evaluation. *International Journal of Intelligent Systems*, 2019, 34(4): 627-651. (SCI)

445 Xiuyan Sha, **Zeshui Xu***, Chuancun Yin. Elliptical distributions-based weights-determining method for OWA operators. *International Journal of Intelligent Systems*, 2019, 34(5): 858-877. (SCI)

446 Lina Wang, Hai Wang, **Zeshui Xu***, Zhiliang Ren. The interval-valued hesitant Pythagorean fuzzy set and its applications with extended TOPSIS and Choquet integral-

based method. *International Journal of Intelligent Systems*, 2019, 34(6): 1063-1085. (SCI)

447 Jianmei Ye, Zhenghai Ai, **Zeshui Xu***. Single variable differential calculus under q-rung orthopair fuzzy environment: Limit, derivative, chain rules and its application. *International Journal of Intelligent Systems*, 2019, 34(7): 1387-1415. (SCI)

448 Boquan Li, **Zeshui Xu**. Prioritized aggregation operators based on the priority degrees in multi-criteria decision making. *International Journal of Intelligent Systems*, 2019, 34(9): 1985-2018. (SCI)

449 Fanyong Meng, Jie Tang, **Zeshui Xu**. Deriving priority weights from intuitionistic fuzzy multiplicative preference relations. *International Journal of Intelligent Systems*, 2019, 34(11): 2937-2969. (SCI)

450 Jie Gao, **Zeshui Xu***. Differential calculus of interval-valued q-rung orthopair fuzzy functions and their applications. *International Journal of Intelligent Systems*, 2019, 34(12): 3190-3219. (SCI)

451 Cheng Zhang, Huchang Liao, Li Luo, **Zeshui Xu**. Multiplicative consistency analysis for q-rung orthopair fuzzy preference relation. *International Journal of Intelligent Systems*, 2020, 35(1): 38-71. (SCI)

452 Xiaomei Mi, Huchang Liao, Xingli Wu, **Zeshui Xu**. Probabilistic linguistic information fusion: a survey on aggregation operators in terms of principles, definitions, classifications, applications and challenges. *International Journal of Intelligent Systems*, 2020, 35(3): 529-556. (SCI)

453 Feng Feng, **Zeshui Xu**, Hamido Fujita, Meiqi Liang. Enhancing PROMETHEE method with intuitionistic fuzzy soft sets. *International Journal of Intelligent Systems*, 2020, 35(7): 1071-1104. (SCI)

454 Mingwei Lin, Qianshan Zhan, **Zeshui Xu**. Decision making with probabilistic hesitant fuzzy information based on multiplicative consistency. *International Journal of Intelligent Systems*, 2020, 35(8): 1233-1261. (SCI)

455 Yuanhang Zheng, **Zeshui Xu***, Yue He. A novel weight-derived method and its application in graduate students' physical health assessment. *International Journal of Intelligent Systems*, 2021, 36(1): 200-231. (SCI)

456 Xunjie Gou, **Zeshui Xu***. Double hierarchy linguistic term set and its extensions: the state-of-the-art survey. *International Journal of Intelligent Systems*, 2021, 36(2): 832-865. (SCI)

457 Rong Ma, Wenyi Zeng, Guangcheng Song, Qian Yin, **Zeshui Xu**. Pythagorean fuzzy C-means algorithm for image segmentation. *International Journal of Intelligent Systems*, 2021, 36(3): 1223-1243. (SCI)

458 Jie Yang, **Zeshui Xu***. A measure of probabilistic hesitant I-fuzzy sets and decision makings for strategy choice. *International Journal of Intelligent Systems*, 2021, 36(3): 1244-1265. (SCI)

459 Nana Liu, **Zeshui Xu***. An overview of ARAS method: Theory development, application extension and future challenges. *International Journal of Intelligent Systems*, 2021, 36(7): 3524-3565. (SCI)

460 Yuanxiang Dong, Xiaoting Cheng, **Zeshui Xu***, Weijie Chen, Hongbo Shi, Ke Gong. Belief interval interpretation of probabilistic linguistic term sets and a visual method for solving the preference problem in multi-criteria group decision making. *International Journal of Intelligent Systems*, 2021, 36(8): 4364-4391. (SCI)

461 Kun Chao, Hua Zhao, Zeshui Xu. Hesitant Mahalanobis distance with applications to estimating the optimal number of clusters. *International Journal of Intelligent Systems*, 2021, 36(9): 5264-5306. (SCI)

462 Xiang Li, **Zeshui Xu***, Hai Wang. Three-way decisions based on some Hamacher aggregation operators under double hierarchy linguistic environment. *International Journal of Intelligent Systems*, 2021, 36(12): 7731-7753. (SCI)

463 Wenyi Zeng, Rong Ma, **Zeping Liu**, Yue Xi, Qian Yin, Zeshui Xu. Some novel distance measures between dual hesitant fuzzy sets and their application in medical diagnosis. *International Journal of Intelligent Systems*, 2022, 37(11): 8653-8671. (SCI)

464 Yang Li, **Zeshui Xu***, Yixin Zhang. A dynamic product evaluation model based on online customer reviews in the perspective of elaboration likelihood model. *International Journal of Intelligent Systems*, 2023, DOI: 1010.1155/2023/5616026. (SCI)

465 **Zeshui Xu***. Goal programming models for obtaining the priority vector of incomplete fuzzy preference relation. *International Journal of Approximate Reasoning*, 2004, 36(3): 261-270. (SCI)

466 **Zeshui Xu**, Ronald R. Yager. Dynamic intuitionistic fuzzy multi-attribute decision making. *International Journal of Approximate Reasoning*, 2008, 48(1): 246-262. (SCI, ESI)

467 Meimei Xia, **Zeshui Xu***. Hesitant fuzzy information aggregation in decision making. *International Journal of Approximate Reasoning*, 2011, 52(3): 395-407. (SCI, ESI)

468 Xiaohan Yu, **Zeshui Xu***. Graph-based multi-agent decision making. *International Journal of Approximate Reasoning*, 2012, 53(4): 502-512. (SCI)

469 Decui Liang, Yuanyuan Fu, **Zeshui Xu***. Novel AQM analysis approach based on similarity and dissimilarity measures of interval set for multi-expert multi-criterion decision making. *International Journal of Approximate Reasoning*, 2022, 142: 266-289. (SCI)

470 Zhenming Ma, Wei Yang, **Zeshui Xu**. Necessity of two normalities for the priority vectors of additively consistent fuzzy preference relations with application to group decision making. *International Journal of Approximate Reasoning*, 2023, 159: 108927. (SCI)

471 **Zeshui Xu***. On generalized induced linguistic aggregation operators. *International Journal of General Systems*, 2006, 35(1): 17-28. (SCI)

472 **Zeshui Xu***, Ronald R. Yager. Some geometric aggregation operators based on intuitionistic fuzzy sets. *International Journal of General Systems*, 2006, 35(4): 417-433. (SCI, ESI)

473 **Zeshui Xu***. A survey of preference relations. *International Journal of General Systems*, 2007, 36(2): 179-203. (SCI)

474 **Zeshui Xu***. Multi-period multi-attribute group decision-making under linguistic assessments. *International Journal of General Systems*, 2009, 38(8): 823-850. (SCI)

475 **Zeshui Xu***, Xiaoqiang Cai. Incomplete interval-valued intuitionistic fuzzy preference relations. *International Journal of General Systems*, 2009, 38(8): 871-886. (SCI)

476 **Zeshui Xu***. Attribute weights determination models for consensus maximization in multiple attribute group decision-making. *International Journal of General Systems*, 2011, 40(7): 755-774. (SCI)

477 **Zeshui Xu***. A consensus reaching process under incomplete multiplicative preference relations. *International Journal of General Systems*, 2012, 41(4): 333-351. (SCI)

478 Mingwei Lin, Qianshan Zhan, **Zeshui Xu**, Riqing Chen. Group decision-making model with hesitant multiplicative preference relations based on regression method and feedback mechanism. *IEEE Access*, 2018, 6: 61130-61150. (SCI)

479 Mingwei Lin, Qianshan Zhan, **Zeshui Xu***, Riqing Chen. Group decision making with probabilistic hesitant multiplicative preference relations based on consistency and consensus. *IEEE Access*, 2018, 6: 63329-63344. (SCI)

480 Hai Wang, Chao Xu, **Zeshui Xu***, Xiao-Jun Zeng, Witold Pedrycz. An aspiration-based approach for qualitative decision-making with complex linguistic expressions. *IEEE Access*, 2019, 7: 12529-12546. (SCI)

481 Chenyang Song, Yixin Zhang, **Zeshui Xu***, Zhinan Hao, Xinxin Wang. Route selection of the Arctic Northwest Passage based on hesitant fuzzy decision field theory. *IEEE*

Access, 2019, 7: 19979-19989. (SCI)

482 Yuling Zhai, **Zeshui Xu***, Huchang Liao. The stably multiplicative consistency of fuzzy preference relation and interval-valued hesitant fuzzy preference relation. *IEEE Access*, 2019, 7: 54929-54945. (SCI)

483 Wanying Xie, **Zeshui Xu***, Zhiliang Ren, Enrique Herrera Viedma. Expanding grey relational analysis with the comparable degree for dual probabilistic multiplicative linguistic term sets and its application on the cloud enterprise. *IEEE Access*, 2019, 7: 75041-75057. (SCI)

484 Mengdi Xu, Shousheng Liu, **Zeshui Xu***, Wei Zhou. DEA evaluation method based on interval intuitionistic Bayesian network and its application in enterprise logistics. *IEEE Access*, 2019, 7: 98277-98289. (SCI)

485 Zhiliang Ren, **Zeshui Xu***, Hai Wang. The strategy selection problem on artificial intelligence with an integrated VIKOR and AHP method under probabilistic dual hesitant fuzzy information. *IEEE Access*, 2019, 7: 103979-103999. (SCI)

486 Song Nie, Huchang Liao, Xingli Wu, **Zeshui Xu**. Green supplier selection with a continuous interval-valued linguistic TODIM method. *IEEE Access*, 2019, 7: 124315-124328. (SCI)

487 Zhenghai Ai, Xiaoqin Shu, **Zeshui Xu**. Simplified interval-valued intuitionistic fuzzy line integrals and their application. *IEEE Access*, 2019, 7: 134256-134270. (SCI)

488 Xue Yang, **Zeshui Xu**, Wei Zhou. Green credit product design based on fuzzy concept lattice. *IEEE Access*, 2019, 7: 141574-141586. (SCI)

489 Zhan Su, **Zeshui Xu***, Hua Zhao, Zhinan Hao, Bei Chen. Entropy measures for probabilistic hesitant fuzzy information. *IEEE Access*, 2019, 7: 65714-65727. (SCI)

490 Yuanxiang Dong, Fan Yang, **Zeshui Xu***, Xin Cheng, Ke Gong. Incomplete and inconsistent information analysis method considering time factors: dynamic paraconsistent soft sets and their application to decision making. *IEEE Access*, 2020, 8: 51532-51549. (SCI)

491 Xue Yang, **Zeshui Xu***. Hesitant fuzzy concept lattice and its application. *IEEE Access*, 2020, 8: 59774-59786. (SCI)

492 Jie Yang, Dengfeng Li, **Zeshui Xu**. Profit allocations for restricted alliance with hesitation degrees in cooperative game theory. *IEEE Access*, 2020, 8: 83105-83115. (SCI)

493 Wenyi Zeng, Rong Ma, Qian Yin, **Zeshui Xu**. Similarity measure of hesitant fuzzy sets based on implication function and clustering analysis. *IEEE Access*, 2020, 8: 119995-120008. (SCI)

494 Shen Zhang, **Zeshui Xu***, Xiao-Jun Zeng, Xin Yan. Integrations of continuous hesitant fuzzy information in group decision making with a case study of water resources emergency management. *IEEE Access*, 2020, 8: 146134-146144. (SCI)

495 Decui Liang, Wen Cao, **Zeshui Xu***. Tri-reference point method for q-rung orthopair fuzzy multiple attribute decision making by considering the interaction of attributes with Bayesian network. *Engineering Applications of Artificial Intelligence*, 2022, 112: 104838 -04838. (SCI)

496 **Zeshui Xu**[*]. Deviation measures of linguistic preference relations in group decision making. *Omega--The International Journal of Management Science*, 2005, 33(3): 249-254. (SSCI, SCI)

497 Yong Qin, **Zeshui Xu***, Xinxin Wang, Marinko Škare. Green energy adoption and its determinants: A bibliometric analysis. *Renewable and Sustainable Energy Reviews*. 2022, 153: 111780. (SCI)

498 Chenxi Zhang, **Zeshui Xu***, Xunjie Gou*, Shuixia Chen. An online reviews-driven method for the prioritization of improvements in hotel services. *Tourism Management*, 2021, 87: 104382. (SSCI)

499 **Zeshui Xu**, Xindi Wang, Xinxin Wang, Marinko Skare. A comprehensive bibliometric

analysis of entrepreneurship and crisis. *Journal of Business Research*, 2021, 135: 304-318. (SSCI)

500 Xinxin Wang, **Zeshui Xu**, Yong Qin, [Marinko Skare](). Service networks for sustainable business: A comprehensive bibliometric analysis over half a century. *Journal of Business Research*, 2021, 136: 543-557. (SSCI)

501 Xinxin Wang, Yong Qin, **Zeshui Xu**, [Marinko Skare](). A look at the focus shift in innovation literature due to COVID-19 Pandemic. *Journal of Business Research*, 2022, 145: 1-20. (SSCI)

502 Hangyao Wu, **Zeshui Xu**, [Marinko Škare](). How do family businesses adapt to the rapid pace of globalization? A bibliometric analysis. *Journal of Business Research*, 2022, 2022, 153: 59-74. (SSCI)

503 Xuecheng Fan, **Zeshui Xu***, Yong Qin, Marinko Škare. Quantifying the short and long-run impact of price volatility on knowledge asset investment. *Journal of Business Research*, 2023, https://doi.org/10.1016/j.jbusres.2023.114048. (SSCI)

504 Yong Qin, Xinxin Wang, **Zeshui Xu***, [Marinko Škare](). The effects of globalization on family firms' business model in Europe. *International Journal of Entrepreneurial Behavior & Research*, 2021, DOI: 10.1108 /IJEBR-12-2021-0994. (SSCI)

505 **Zeshui Xu***. A practical procedure for group decision making under incomplete multiplicative linguistic preference relations. *Group Decision and Negotiation*, 2006, 15(6): 581-591. **(SSCI)**

506 **Zeshui Xu***. A note on linguistic hybrid arithmetic averaging operator in multiple attribute group decision making with linguistic information. *Group Decision and Negotiation*, 2006, 15(6): 593-604. (SSCI**)**

507 **Zeshui Xu***. An interactive approach to multiple attribute group decision making with multigranular uncertain linguistic information. *Group Decision and Negotiation*, 2009, 18(2): 119-145. (SSCI)

508 **Zeshui Xu***. A deviation-based approach to intuitionistic fuzzy multiple attribute group decision making. *Group Decision and Negotiation*, 2010, 19(1): 57-76. (SSCI, ESI)

509 **Zeshui Xu***, Xiaoqiang Cai. Minimizing group discordance optimization model for deriving expert weights. *Group Decision and Negotiation*, 2012, 21(6): 863-875. (SSCI)

510 **Zeshui Xu***, Xiaoqiang Cai. Uncertain power average operators for aggregating interval fuzzy preference relations. *Group Decision and Negotiation*, 2012, 21(3): 381-397. (SSCI, ESI)

511 **Zeshui Xu***. Compatibility analysis of intuitionistic fuzzy preference relations in group decision making. *Group Decision and Negotiation*, 2013, 22(3): 463-482. (SSCI)

512 Meimei Xia, **Zeshui Xu***, Na Chen. Some hesitant fuzzy aggregation operators with their application in group decision making. *Group Decision and Negotiation*, 2013, 22(2): 259-279. (SSCI, ESI)

513 **Zeshui Xu***, Xiaoqiang Cai. On consensus of group decision making with interval utility values and interval preference orderings. *Group Decision and Negotiation*, 2013, 22(6): 997-1019. (SSCI)

514 **Zeshui Xu***, Xiaoqiang Cai. Deriving weights from interval multiplicative preference relations in group decision making. *Group Decision and Negotiation*, 2014, 23(4): 695-713. (SSCI)

515 **Zeshui Xu***, Xiaoqiang Cai. Group decision making with incomplete interval-valued intuitionistic preference relations. *Group Decision and Negotiation*, 2015, 24(2): 193-215. (SSCI)

516 Xiang Deng, Xiang Cheng, Jing Gu, **Zeshui Xu***. An innovative indicator system and group decision framework for assessing sustainable development enterprises. *Group Decision and Negotiation*, 2021, 30(6): 1201-1238. (SSCI)

517 Bin Zhu, **Zeshui Xu**. Regression methods for hesitant fuzzy preference relations.

Technological and Economic Development of Economy, 2013, 19(Supl), S214-S227. (SSCI)

518 Bin Zhu, **Zeshui Xu***. Extended hesitant fuzzy sets. *Technological and Economic Development of Economy*, 2016, 22(1): 100-121. (SSCI)

519 Xiaohan Yu, **Zeshui Xu**, Junquan Hu, Shousheng Liu. Systematic decision making: An extended multi-criteria decision making model. *Technological and Economic Development of Economy*, 2017, 23(1): 157-177. (SSCI)

520 Bin Zhu, **Zeshui Xu***. Probability-hesitant fuzzy sets and the presentation of preference relations. *Technological and Economic Development of Economy*, 2018, 24(3): 1029-1040. (SSCI)

521 Jing Gu, Zijian Wang, **Zeshui Xu**, Xuezheng Chen. A decision-making framework based on prospect theory under intuitionistic fuzzy environment. *Technological and Economic Development of Economy*, 2018, 24(6): 2374-2396. (SSCI).

522 Shukuan Liu, Jie Gao, **Zeshui Xu***. Fuzzy supply chain coordination mechanism with imperfect quality items. *Technological and Economic Development of Economy*, 2019, 25(2): 239-257. (SSCI).

523 Nana Liu, Yue He, **Zeshui Xu***. Evaluate public-private-partnership's Advancement using double hierarchy hesitant fuzzy linguistic PROMETHEE with subjective and objective information from stakeholder perspective. *Technological and Economic Development of Economy*, 2019, 25(3): 386-420. (SSCI)

524 Dejian Yu, **Zeshui Xu***, Jonas Saparauskas. The evolution of Technological and Economic Development of Economy: A bibliometric analysis. *Technological and Economic Development of Economy*, 2019, 25(3): 369-385. (SSCI, ESI)

525 Xiaoli Tian, **Zeshui Xu***, Jing Gu. Group decision-making models for venture capitalists: The PROMETHEE with hesitant fuzzy linguistic information. *Technological and Economic Development of Economy*, 2019, 25(5): 743-773. (SSCI)

526 Huchang Liao, **Zeshui Xu**, Francisco Herrera. Applications of Contemporary decision-making methods to the development of economy and technology. *Technological and Economic Development of Economy*, 2020, 26(3): 546-548. (SSCI)

527 Jie Gao, Zhilei, Liang, Jennifer Shang, **Zeshui Xu***. Remanufacturing with patented technique royalty under asymmetric information and uncertain markets. *Technological and Economic Development of Economy*, 2020, 26(3), 599-620. (SSCI)

528 Xunjie Gou, **Zeshui Xu***, Wei Zhou. Managing consensus by multi-Stage optimization models with linguistic preference orderings and double hierarchy linguistic preferences. *Technological and Economic Development of Economy*, 2020, 26(3), 642-674. (SSCI)

529 Wenshuai Wu, **Zeshui Xu**, Gang Kou. Evaluation of group decision making based on group preferences under a multi-criteria environment. *Technological and Economic Development of Economy*, 2020, 26(6): 1187-1212. (SSCI)

530 Jiajia Chen, **Zeshui Xu***, Xunjie Gou, Dongbin Huang, Jianchuan Zhang. Automobile components procurementusing a DEA-TOPSIS-FMIP approach with all-unit quantity discount and fuzzy factors. *Technological and Economic Development of Economy*, 2020, 27(2): 1-42. (SSCI)

531 **Zeshui Xu***, Enrique Herrera-Viedma. Advances in fuzzy techniques and applications: In occasion of Lotfi Zadeh 100 birth anniversary. *Technological and Economic Development of Economy*, 2021, 27(2): 280-283. (SSCI)

532 Meng Zhao, Chenxi Zhang, Yi-qi Hu, **Zeshui Xu***, Hao Liu. Modelling consumer satisfaction based on online reviews using the improved Kano model from the perspective of risk attitude and aspiration. *Technological and Economic Development of Economy*, 2021, 27(3): 550-582. (SSCI)

533 Yuanxiang Dong, Xumei Zheng, **Zeshui Xu***, Weijie Chen, Hongbo Shi, Ke Gong. A novel decision-making framework based on probabilistic linguistic term set for selecting sustainable supplier considering social credit. *Technological and Economic Development*

of Economy, 2021, 27(6): 1447-1480. (SSCI)

534 Yong Qin, **Zeshui Xu***, Xinxin Wang*, Marinko Škare, Małgorzata Porada-Rochon. Financial cycles in the economy and in economic research: A case study in China. *Technological and Economic Development of Economy*, 2021, DOI: 10.3846/tede.2021. 15439. (SSCI)

535 Bo Li, **Zeshui Xu**, Hangyao Wu, Nan Hong, Marinko Skare. Open innovation: A research framework and case study of Huawei. *Technological and Economic Development of Economy*, 2023, DOI: 10.3846/tede.2023. 17843. (SSCI)

536 Yong Qin, **Zeshui Xu***, Xinxin Wang, Marinko Škare. Are family firms in the eyes of economic policy. *International Entrepreneurship and Management Journal*, 2021, 17(1): 1233-1259. (SSCI)

537 Yangyang Yu, **Zeshui Xu**, Yong Qin, Marinko Škare. Bibliometric analysis of strategic entrepreneurship literature. *International Entrepreneurship and Management Journal*, 2022, DOI: 10.1007/s11365-022-00804-7. (SSCI)

538 Xinxin Wang, **Zeshui Xu**, Anran Xiao, Marinko Skare. Measuring short- and long-run impact of COVID19 on the sharing economy and business models. *International Entrepreneurship and Management Journal*, 2023, DOI: 10.1007/s11365-023-00868-z. (SSCI)

539 Bo Li, **Zeshui Xu***. Insights into financial technology (FinTech): A bibliometric and visual study. *Finacial Innovation*, 2021, 7: 69. (SSCI)

540 **Zeshui Xu***, Wei Zhou, Edita Baltrėnaitė. Comprehensive bibliometric study of Journal of Environmental Engineering and Landscape Management from 2007 to 2019. *Journal of Environmental Engineering and Landscape Management*, 2019, 27(4): 215-227. (SSCI)

541 Wei Zhou, **Zeshui Xu***, Edmundas Kazimieras Zavadskas, Alfredas Laurinavičius.The knowledge domain of the Baltic Journal of Road and Bridge Engineering between 2006 and 2019. *The Baltic Journal of Road and Bridge Engineering*, 2020, 15(2): 1-30. (SCI)

542 **Zeshui Xu**, Zijing Ge, Xinxin Wang, Marinko Skare. Bibliometric analysis of technology adoption literature published from 1997 to 2020. *Technological Forecasting & Social Change*, 2021, DOI: 10.1016/ j.techfore.2021.120896. (SSCI, SCI)

543 Xinxin Wang, **Zeshui Xu**, Yong Qin, Marinko Skare. Innovation, the knowledge economy, and green growth: Is a knowledge intensive growth really environmentally friendly? *Energy Economics*, DOI: 10.10 16/j.eneco.2022. 106331. (SSCI, SCI)

544 Mohit Verma, Prabhat Ranjan Prem, Peijia Ren, Huchang Liao, **Zeshui Xu**. Green supplier selection with a multiple criteria decision-making method based on thermodynamic features. *Environment, Development and Sustainability*, 2022, DOI: 10.1007/s10668-022-02160-6. (SCI)

545 Nana Liu, **Zeshui Xu***, Marinko Skare. The research on COVID-19 and economy from 2019 to 2020: Analysis from the perspective of bibliometrics. *Oeconomia Copernicana*, 2021, 12(2), 217–268. (SSCI)

546 Xindi Wang, **Zeshui Xu**, Xinxin Wang, Marinko Skare. A review of inflation from 1906 to 2022: A comprehensive analysis of inflation studies from a global perspective. *Oeconomia Copernicana*, 2022, DOI: 10. 24136/oc.2022.018. (SSCI)

547 Wei Zhou, **Zeshui Xu***, Paulius Skačkauskas. Mapping knowledge domain of TRANSPORT: A bibliometric study of its status quo and emerging trends. *TRANSPORT*, 2020, 34(6): 741-753. (SCI)

548 Xinxin Wang, **Zeshui Xu***, Zijing Ge, Edmundas Kazimieras Zavadskas. An overview of a leader journal in the field of transport: A Bibliometric analysis of Computer-Aided Civil and Infrastructure Engineering from 2000 to 2019. *TRANSPORT*, 2021, 35(6): 557-575. (SCI)

549 Yang Li, **Zeshui Xu***, Xinxin Wang, Florin Gheorghe Filip. Studies in Informatics and Control: A bibliometric analysis from 1994 to 2019. *International Journal of Computers Communications & Control*, 2019, 14(6): 633-652. (SCI)

550 Xinxin Wang, **Zeshui Xu***, [Ioan Dzitac](#). Bibliometric analysis on research trends of International Journal of Computers Communications & Control. *International Journal of Computers Communications & Control*, 2019, 14(5): 711-732. (SCI)

551 Zhan Su, Zeshui Xu, Hua Zhao, Shousheng Liu. Hesitant fuzzy DeGroot opinion dynamics model and its application in multi-attribute decision making. *International Journal of Computers Communications & Control*, 2020, 15(4): 3888. (SCI)

552 Hangyao Wu, **Zeshui Xu***. Fuzzy logic in decision support: Methods, applications and future trends *International Journal of Computers Communications & Control*, 2021, 16(1): 4044. (SCI)

553 Yiying Wang, **Zeshui Xu***, Florin Gheorghe Filip. Multi-objective model to improve network reachability under limited budget by considering location of facilities and total service distance. *International Journal of Computers Communications & Control*, 2022, 17(1): 4573. (SCI)

554 Yiying Wang, **Zeshui Xu***. A multi-objective location decision making model for emergency shelters giving priority to subjective evaluation of residents. *International Journal of Computers Communications & Control*, 2022, 17(4): 4749. (SCI)

555 Hongyu Chen, **Zeshui Xu***, Yue He. A recommender system based on hesitant fuzzy linguistic information with MAPPACC approach. *Studies in Informatics and Control*, 2020, 29(2): 145-158. (SCI)

556 **Zeshui Xu***, Jiajia Chen, Jianmei Ye, Jianchuan Zhang. Automotive parts purchasing using the fuzzy MOMIP model of reliability objective with uncertain weights. *Studies in Informatics and Control*, 2021, 30(2) 5-20. (SCI)

557 Duo Xu, **Zeshui Xu***, Shuixia Chen. Diagnosing out-of-control signals of multivariate control chart based on variable length PSO-SVM. *Studies in Informatics and Control*, 2021, 30(3): 5-17. (SCI)

558 Yiying Wang, **Zeshui Xu***, Florin Gheorghe FILIP. A multi-objective model for the location of the emergency facilities and the selection of the rescue path based on the restoration of the damaged edges. *Studies in Informatics and Control*, doi.org/10.24846/ v31i3y2022XX. (SCI)

559 Mingwei Lin, Chao Huang, **Zeshui Xu**. MULTIMOORA based MCDM model for site selection of car sharing station under picture fuzzy environment. *Sustainable Cities and Society*, 2020, 53, 101873. (SCI, ESI, ESI hot paper)

560 Shuixia Chen, **Zeshui Xu***, Xinxin Wang, [Marinko Skare](#). A bibliometric analysis of natural disasters and business management in tourism. *Journal of Business Economics and Management*, DOI: 10.3846/jbem. 2022.16388. (SSCI)

561 Decui Liang, Xin He, **Zeshui Xu**, Jiahong Li. Multi-attribute strict two-sided matching methods with interval-valued preference ordinal information. *Journal of Experimental & Theoretical Artificial Intelligence*, 2022, 34(4): 545-569. (SCI)

562 Mingwei Lin, Zheyu Chen, Huchang Liao, **Zeshui Xu**. ELECTRE II method to deal with probabilistic linguistic term sets and its application to edge computing. *Nonlinear Dynamics*, 2019, 96(3): 2125-2143. (SCI, ESI)

563 Na Zhao, **Zeshui Xu**[*]. Entropy measures for interval-valued intuitionistic fuzzy information from a comparative perspective and their application to decision making. *INFORMATICA*, 2016, 27(1): 203-228. (SCI)

564 Na Zhao, **Zeshui Xu**[*]. Prioritized dual hesitant fuzzy aggregation operators based on t-norms and t-conorms with their applications in decision making. *INFORMATICA*, 2018, 29(3): 581-607. (SCI)

565 Xiaoli Tian, **Zeshui Xu***, Jing Gu. An extended TODIM based on cumulative prospect theory and its application in venture capital. *INFORMATICA*, 2019, 30(2): 413-429. (SCI)

566 Lei Zhou, **Zeshui Xu**[*], Xianhua Wu, Hamido Fujita. Emergency decision making for natural disasters: An overview. *[International Journal of Disaster Risk Reduction](#)*, 2018,

27: 567-576. (SSCI, SCI, ESI)

567 Ling Tan, Xianhua Wu, **Zeshui Xu**, Lianshui Li. Comprehensive economic loss assessment of disaster based on CGE Model and IO Model—A case study on Beijing "7.21 Rainstorm". *International Journal of Disaster Risk Reduction*, 2019, 39, 101246. (SSCI, SCI)

568 Wei Zhou, **Zeshui Xu***, Edmundas Kazimieras Zavadskas. A bibliometric overview of international journal of strategic property management between 2008 and 2019. *International Journal of Strategic Property Management*, 2019, 23(6): 366-377. (SSCI)

569 Xunjie Gou, Huchang Liao, Xinxin Wang, **Zeshui Xu**, Francisco Herrera. Consensus based on multiplicative consistent double hierarchy linguistic preferences: Venture capital in real estate market. *International Journal of Strategic Property Management*, 2020, 24(1): 1-23. (SSCI, ESI)

570 Xiaolu Zhang, **Zeshui Xu***, Xiaoming Xing. Hesitant fuzzy programming technique for multidimensional analysis of hesitant fuzzy preferences. *OR Spectrum*, 2016, 38(3): 789-817. (SCI)

571 Chao Huang, Mingwei Lin, **Zeshui Xu**. Pythagorean fuzzy MULTIMOORA method based on distance measure and score function: Its application in multicriteria decision-making process. *Knowledge and Information Systems*, 2020, 62: 4373-4406. (SCI)

572 Xiaolu Zhang, **Zeshui Xu***. Hesitant trapezoidal fuzzy QUALIFLEX method and its application in the evaluation of green supply chain initiatives. *Sustainability*, 2016, 8(9): 952-969. (SSCI, SCI)

573 Huchang Liao, Di Wu, Yulong Huang, Peijia Ren, **Zeshui Xu***, Mohit Verma. Green logistic provider selection with a hesitant fuzzy linguistic thermodynamic method integrating cumulative prospect theory and PROMETHEE. *Sustainability*, 2018, 10(4), 1291. (SSCI, SCI)

574 Chenyang Song, **Zeshui Xu***, Hua Zhao. A novel comparison of probabilistic hesitant fuzzy information in multi-criteria decision making. *Symmetry*, 2018, 10(5), 177. (SCI)

575 Zhan Su, **Zeshui Xu**, Hua Zhao, Shousheng Liu. Distribution-based approaches to deriving weights from dual hesitant fuzzy information. *Symmetry*, 2019, 11(1): 85. (SCI)

576 Yuling Zhai, **Zeshui Xu**. Consistency checking and improving for interval-valued hesitant preference relations. *Symmetry*, 2019, 11(4): 466. (SCI)

577 Jing Gu, Junyao Wang, Yang Yang, **Zeshui Xu**. Credit line models for supply chain enterprises with channel background and soft information. *Sustainability*, 2019, 11(10), 2985. (SSCI, SCI)

578 Guohua Qu, Yanfang Wang, Weihua Qu, Qiang Zhang, **Zeshui Xu**. Low-carbon supply chain emission reduction strategy considering the supervision of downstream enterprises based on evolutionary game theory. *Sustainability*, 2021, 13(5): 2827. (SSCI, SCI)

579 Bo Li, **Zeshui Xu***, Edmundas Kazimieras Zavadskas, Jurgita Antuchevičienė, Zenonas Turskis. A bibliometric analysis of Symmetry (2009-2019). *Symmetry*, 2020, 12(8), 1304. (SCI)

580 Xinxin Wang, **Zeshui Xu***, Xunjie Gou. Consensus-based track association with multi-static sensors under nested probabilistic-numerical linguistic environment. *Sensors*, 2019, 19(6): 1381. (SCI)

581 Huchang Liao, **Zeshui Xu**, Jiuping Xu. An approach to hesitant fuzzy multi-stage multi-criterion decision making. *Kybernetes*, 2014, 43(9-10): 1447-1468. (SCI)

582 Luis Perez-Dominguez, Luis Alberto Rodriguez-Picon, Alejandro Alvarado-Iniesta, David Luviano Cruz, **Zeshui Xu**. MOORA under pythagorean fuzzy set for multiple-criteria decision making. *Complexity*, 2018, 2602376. (SCI, ESI)

583 Mingwei Lin, Jiuhan Wei, **Zeshui Xu**. Multi-attribute group decision making based on linguistic Pythagorean fuzzy interaction partitioned Bonferroni mean aggregation operators. *Complexity*, 2018, 9531064. (SCI)

584 Yuling Zhai, **Zeshui Xu***, Peijia Ren. Differentiating the personalized information of the

physician-patient communication for the chronic obstructive pulmonary disease with general probabilistic linguistic vector evaluation terms. *Complexity*, 2019, 2574075. (SCI)

585 Zhenghai Ai, Xiaoqin Shu, **Zeshui Xu***. Foundation of interval-valued intuitionistic fuzzy limit and differential theory and an application to continuous data. *Complexity*, 2019, 3947261. (SCI)

586 Mingwei Lin, Chao Huang, **Zeshui Xu**, Shengrui Wang. TOPSIS method based on correlation coefficient and entropy measure for linguistic Pythagorean fuzzy sets and its application to multiple attribute decision making. *Complexity*, 2019, 6967390. (SCI)

587 Xiaoli Tian, Meiling Niu, Xinxin Wang, **Zeshui Xu***. A novel TODIM with probabilistic hesitant fuzzy information and its application in green supplier selection. *Complexity*, 2020, 2540798. (SCI)

588 Wenshuai Wu, **Zeshui Xu**. Hybrid TODIM method with crisp number and probability linguistic term set for urban epidemic situation evaluation. *Complexity*, 2020, 4857392. (SCI)

589 Wenshuai Wu, **Zeshui Xu**, Gang Kou, Yong Shi, Decision-making support for the evaluation of clustering algorithms Based on MCDM. *Complexity*, 2020, 9602526. (SCI)

590 Meimei Xia, **Zeshui Xu**. An approach to multiplicative linguistic group decision making based on possibility degrees. *International Transactions in Operational Research*, 2018, 25(5): 1611-1634. (SSCI, SCI)

591 Yixin Zhang, **Zeshui Xu***. Efficiency evaluation of sustainable water management using the HF-TODIM method. *International Transactions in Operational Research*, 2019, 26(2): 747-764. (SSCI, SCI, ESI)

592 Huchang Liao, Guangsen Si, **Zeshui Xu**, Hamido Fujita. Hesitant fuzzy linguistic preference utility set and its application in selection of fire rescue plans. *International Journal of Environmental Research and Public Health*, 2018, 15(4), 664. (SSCI, SCI)

593 Ming Tang, Huchang Liao, Zongmin Li, **Zeshui Xu**. Nature disaster risk evaluation with a group decision making method based on incomplete hesitant fuzzy linguistic preference relations. *International Journal of Environmental Research and Public Health*, 2018, 15(4): 751. (SSCI, SCI)

594 Ling Pan, Peijia Ren, **Zeshui Xu***. Therapeutic schedule evaluation for brain metastasized non-small cell lung cancer with probabilistic linguistic ELECTRE II method. *International Journal of Environmental Research and Public Health*, 2018, 15(9): 1799. (SSCI, SCI)

595 Guohua Qu, Rudan Xue, Weihua Qu, Tianjiao Li, **Zeshui Xu**. Stochastic multi-attribute method for measuring sustainability performance of a supplier based on triple bottom line approach under dual hesitant fuzzy linguistic environment. *International Journal of Environmental Research and Public Health*, 2020, 17(6): 2138. (SSCI, SCI)

596 Guohua Qu, Zhijie Zhang, Weihua Qu, **Zeshui Xu**. Green supplier selection based on green practices evaluated using fuzzy approaches of TOPSIS and ELECTRE with a case study in a Chinese internet company. *International Journal of Environmental Research and Public Health*. 2020, 17(9): 3268. (SSCI, SCI)

597 Huchang Liao, **Zeshui Xu***. Some new hybrid weighted aggregation operators under hesitant fuzzy multi-criteria decision making environment. *Journal of Intelligent & Fuzzy Systems*, 2014, 26(4): 1601-1617. (SCI, ESI)

598 Bin Zhu, **Zeshui Xu***. Some results for dual hesitant fuzzy sets. *Journal of Intelligent & Fuzzy Systems*, 2014, 26(4): 1657-1668. (SCI, ESI)

599 Huchang Liao, **Zeshui Xu***. Subtraction and division operations over hesitant fuzzy sets. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(1): 65-72. (SCI, ESI)

600 Na Chen, **Zeshui Xu***. Properties of interval-valued hesitant fuzzy sets. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(1): 143-158. (SCI)

601 Xiaolu Zhang, **Zeshui Xu***. Deriving experts' weights based on consistency

maximization in intuitionistic fuzzy group decision making. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(1): 221-233. (SSCI, SCI)

602 Hua Zhao, **Zeshui Xu**[*]. Group decision making with density-based aggregation operators under interval-valued intuitionistic fuzzy environments. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(2): 1021-1033. (SCI)

603 Liuhao Chen, **Zeshui Xu**[*]. A prioritized aggregation operator based on OWA operator and prioritized measure. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(3): 1297-1307. (SCI)

604 Huchang Liao, **Zeshui Xu**[*]. Multi-criteria decision making with intuitionistic fuzzy PROMETHEE. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(4): 1703-1717. (SCI, ESI)

605 Huchang Liao, **Zeshui Xu**[*]. Automatic procedures for group decision making with intuitionistic preference relations. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(5): 2341-2353. (SCI)

606 Huchang Liao, **Zeshui Xu**[*], Meimei Xia. Multiplicative consistency of interval-valued intuitionistic fuzzy preference relation. *Journal of Intelligent & Fuzzy Systems*, 2014, 27(6): 2969-2985. (SCI)

607 Zhao Zhang, **Zeshui Xu**[*]. The orders of intuitionistic fuzzy numbers. *Journal of Intelligent & Fuzzy Systems*, 2015, 28(2): 505-511. (SCI)

608 Xiaolu, Zhang, **Zeshui Xu**[*]. Novel distance and similarity measures on hesitant fuzzy sets with applications to clustering analysis. *Journal of Intelligent & Fuzzy Systems*, 2015, 28(5): 2279-2296. (SCI)

609 Zhan Su, **Zeshui Xu**[*], Haifeng Liu, Shousheng Liu. Distance and similarity measures for dual hesitant fuzzy sets and their applications in pattern recognition. *Journal of Intelligent & Fuzzy Systems*, 2015, 29(2): 731-745. (SCI)

610 Liuhao Chen, **Zeshui Xu**[*]. A new prioritized multi-criteria outranking method: The prioritized PROMETHEE. *Journal of Intelligent & Fuzzy Systems*, 2015, 29(5): 2099-2110. (SCI)

611 Xunjie Gou, **Zeshui Xu**[*], Qian Lei. New operational laws and aggregation method of intuitionistic fuzzy information. *Journal of Intelligent & Fuzzy Systems*, 2016, 30(1): 129-141. (SCI)

612 Hua Zhao, **Zeshui Xu**[*]. Intuitionistic fuzzy multi-attribute decision making with ideal-point-based method and association measure. *Journal of Intelligent & Fuzzy Systems*, 2016, 30(2): 747-757. (SCI)

613 Peijia Ren, **Zeshui Xu**[*], Qian Lei. Simplified interval-valued intuitionistic fuzzy sets with intuitionistic fuzzy numbers. *Journal of Intelligent &Fuzzy Systems*, 2016, 30(5): 2871-2882 (SCI)

614 Wei Zhou, **Zeshui Xu**[*]. Extreme intuitionistic fuzzy weighted aggregation operators and their applications in optimism and pessimism decision-making processes. *Journal of Intelligent & Fuzzy Systems*, 2017, 32(1): 1129-1138. (SCI)

615 Jie Ding, **Zeshui Xu**[*], Na Zhao. An interactive approach to probabilistic hesitant fuzzy multi-attribute group decision making with incomplete weight information. *Journal of Intelligent & Fuzzy Systems*, 2017, 32(3): 2523-2536. (SCI)

616 Hongbin Liu, Le Jiang, **Zeshui Xu**[*]. Improving the additive and multiplicative consistency of hesitant fuzzy linguistic preference relations. *Journal of Intelligent & Fuzzy Systems*, 2017, 33(6): 3677-3693. (SCI)

617 Zia Bashir, Tabasam Rashid, **Zeshui Xu**. Hesitant fuzzy preference relations based on *a*-normalization with self-confidence in decision making. *Journal of Intelligent & Fuzzy Systems*, 2018, 35(3): 3421-3435. (SCI)

618 Ming Liu, Hua Zhao, **Zeshui Xu**, Rufei Ma. Simplified interval-valued intuitionistic multiplicative numbers in uncertain group decision making. *Journal of Intelligent &*

Fuzzy Systems, 2019, 37(3): 3879-3895. (SCI)

619 Yanling Lu, Shaojian Qu, **Zeshui Xu**, Gang Ma, Ziwei Li. Multiattribute social network matching with unknown weight and different risk preference. *Journal of Intelligent & Fuzzy Systems*, 2020, 38(4): 4031-4048. (SCI)

620 Chenyang Song, **Zeshui Xu***, Yixin Zhang. The optimized evidence k-Nearest Neighbor based on FOA under the hesitant fuzzy environment and its application in classification. *Journal of Intelligent & Fuzzy Systems*, 2020, 39(1): 1119-1129. (SCI)

621 Wenyi Zeng, Rong Ma, Qian Yin, Xin Zheng, **Zeshui Xu**. Hesitant fuzzy C-means algorithm and its application in image segmentation. *Journal of Intelligent & Fuzzy Systems*, 2020, 39(3): 3681-3695. (SCI)

622 Chen Jin, **Zeshui Xu***, Jinwei Wang. Assessing economic losses of haze with uncertain probabilistic linguistic analytic hierarchy process. *Journal of Intelligent & Fuzzy Systems*, 2020, 39(5): 7547-7569. (SCI)

623 Rufei Ma, Shousheng Liu, **Zeshui Xu***, Qian Lei. Series based on the new order in intuitionistic fuzzy environment. *Journal of Intelligent & Fuzzy Systems*, 2021, 40(1): 319-330. (SCI)

624 Xiuyan Sha, Chuancun Yin, **Zeshui Xu**, Shen Zhang. Probabilistic hesitant fuzzy TOPSIS emergency decision-making method based on cumulative prospect theory. *Journal of Intelligent & Fuzzy Systems*, 2021, 40(3): 4367-4383. (SCI)

625 Lina Wang, **Zeshui Xu***. The risk evaluation of PPP projects: A technique based on probabilistic linguistic terms with weakened hedges. *Journal of Intelligent & Fuzzy Systems*, 2021, 41(1): 1173-1191. (SCI)

626 Ying Ji, Xiaowan Jin, **Zeshui Xu**, Shaojian Qu. A mixed 0-1 programming approach for multiple attribute strategic weight manipulation based on uncertainty theory. *Journal of Intelligent & Fuzzy Systems*, 2021, 41(6): 6739-6754. (SCI)

627 Xuan Yao, Hai Wang, **Zeshui Xu**[*]. Multiplicative consistency of linguistic preference relations with weakened hedges. *Journal of Intelligent & Fuzzy Systems*, 2022, DOI:10. 3233/JIFS-213170. (SCI)

628 Xindi Wang, **Zeshui Xu***, Yong Qin. A CVaR optimization method for priority of hesitant fuzzy preference relation with chance constraint. *Journal of Intelligent & Fuzzy Systems*, 2023, 44: 395-408. (SCI)

629 Hua Zhao, **Zeshui Xu**, Feng Cui. Generalized hesitant fuzzy harmonic Mean operators and their applications in group decision making. *International Journal of Fuzzy Systems*, 2016, 18(4): 685-696. (SCI)

630 Feng Tian, Shousheng Liu, **Zeshui Xu**[*], Qian Lei. Partial derivative and complete differential of binary intuitionistic fuzzy functions. *International Journal of Fuzzy Systems*, 2017, 19(2): 273-284. (SCI)

631 Jie Gao, **Zeshui Xu**[*], Huchang Liao. A dynamic reference point method for emergency response under hesitant probabilistic fuzzy environment. *International Journal of Fuzzy Systems*, 2017, 19(5): 1261-1278. (SCI)

632 Yiying Wang, **Zeshui Xu**[*]. Evaluation of the human settlement in Lhasa with intuitionistic fuzzy analytic hierarchy process. *International Journal of Fuzzy Systems*, 2018, 20(1): 29-44. (SCI)

633 Tabasam Rashid, Shahzad Faizi, **Zeshui Xu**, Sohail Zafar. ELECTRE-based outranking method for multi-criteria decision making using hesitant intuitionistic fuzzy linguistic term sets. *International Journal of Fuzzy Systems*, 2018, 20(1): 78-92. (SCI)

634 Chaoqun Li, Hua Zhao, **Zeshui Xu**[*]. Kernel C-means clustering algorithms for hesitant fuzzy information in decision making. *International Journal of Fuzzy Systems*, 2018, 20(1): 141-154. (SCI)

635 Rufei Ma, Shousheng Liu, **Zeshui Xu**[*], Qian Lei. The basis and coordinates in intuitionistic fuzzy environment. *International Journal of Fuzzy Systems*, 2018, 20(5): 1483-1494. (SCI)

636 Huchang Liao, **Zeshui Xu**, Francisco Herrera, Jose M. Merigo. Editorial message: Special issue on hesitant fuzzy linguistic decision making: Algorithms, theory and applications. *International Journal of Fuzzy Systems*, 2018, 20(7): 2083. (SCI)

637 Huchang Liao, **Zeshui Xu***, Enrique Herrera-Videma, Francisco Herrera. Hesitant fuzzy linguistic term set and its application in decision making: A state-of-the-art survey. *International Journal of Fuzzy Systems*, 2018, 20(7): 2084-2110. (SCI, ESI, ESI hot paper)

638 Decui Liang, Adjei Peter Darko, **Zeshui Xu***. Pythagorean fuzzy partitioned geometric Bonferroni mean and its application to multi-criteria group decision making with grey relational analysis. *International Journal of Fuzzy Systems*, 2019, 21(1): 115-128. (SCI)

639 Chenyang Song, **Zeshui Xu***, Hua Zhao. New correlation coefficients between probabilistic hesitant fuzzy sets and their applications in cluster analysis. *International Journal of Fuzzy Systems*, 2019, 21(2): 355-368. (SCI)

640 Jianmei Ye, **Zeshui Xu***, Xunjie Gou. A new perspective of Bayes formula based on D-S theory in interval intuitionistic fuzzy environment and its Applications. *International Journal of Fuzzy Systems*, 2019, 21(4): 1196-1213. (SCI)

641 Chen Jin, Hai Wang, **Zeshui Xu***. Uncertain probabilistic linguistic term sets in group decision making. *International Journal of Fuzzy Systems*, 2019, 21(4): 1241-1258. (SCI)

642 Xinxin Wang, **Zeshui Xu***, Xunjie Gou, Miao Xu. Distance and similarity measures for nested probabilistic-numerical linguistic term sets applied to evaluation of medical treatment. *International Journal of Fuzzy Systems*, 2019, 21(5): 1306-1329. (SCI)

643 Wanying Xie, **Zeshui Xu***, Zhiliang Ren. An analysis on the influence of Chinese "new four inventions" under the incomplete hybrid probabilistic linguistic environment. *International Journal of Fuzzy Systems*, 2019, 21(5): 1349-1366. (SCI)

644 Xiaoyi Mo, Hua Zhao, **Zeshui Xu**, Zhinan Hao, Shengkai Xiang. Hesitant fuzzy multiple integrals for information aggregation. *International Journal of Fuzzy Systems*, 2020, 22(2): 668-685. (SCI)

645 Yang Li, Yixin Zhang, **Zeshui Xu***. A decision-making model under probabilistic linguistic circumstances with unknown criteria weights for online customer reviews. *International Journal of Fuzzy Systems*, 2020, 22(2): 777-789. (SCI)

646 Wei Zhou, **Zeshui Xu***. An overview of the fuzzy data envelopment analysis research and its successful applications. *International Journal of Fuzzy Systems*, 2020, 22(4): 1037-1055. (SCI)

647 Bo Li, Yixin Zhang, **Zeshui Xu***. The medical treatment service matching based on the probability linguistic term set with unknown attribute weights. *International Journal of Fuzzy Systems*, 2020, 22(4): 1487-1505. (SCI)

648 Dejian Yu, **Zeshui Xu***, L. Martínez. Visualizing the intellectual structure of the linguistic fuzzy knowledge domain: A bibliometric analysis. *International Journal of Fuzzy Systems*, 2020, 22: 2397-2413. (SCI)

649 Xuan Yao, Hai Wang, **Zeshui Xu**. Probabilistic linguistic term envelopment analysis model. *International Journal of Fuzzy Systems*, 2021, 23(1): 262-279. (SCI)

650 Xiang Li, Hai Wang, **Zeshui Xu***. Work resumption after epidemic using three-way decisions. *International Journal of Fuzzy Systems*, 2021, 23(2): 630-641. (SCI)

651 Yong Qin, Xinxin Wang, **Zeshui Xu***. Ranking tourist attractions through online reviews: A novel method withintuitionistic and hesitant fuzzy information based on sentiment analysis. *International Journal of Fuzzy Systems*, 2022, 24(2): 755-777. (SCI)

652 Jalil Heidary Dahooie, Mehrdad Estiri, Edmundas Kazimieras Zavadskas, **Zeshui Xu**. A novel hybrid fuzzy DEA-fuzzy ARAS method for prioritizing high performance human resource innovation-oriented practices in High tech SME's. *International Journal of Fuzzy Systems*, 2022, 24(2): 883-908. (SCI)

653 Xiaofeng Chen, Yanting Fang, Junyi Chai, **Zeshui Xu**. Does intuitionistic fuzzy analytic hierarchy process work better than analytic hierarchy process? *International Journal of*

Fuzzy Systems, 2022, 24(2): 909-924. (SCI)

654 Seyed Hossein Razavi Hajiagha, Jalil Heidary Dahooie, Niloofar Ahmadzadeh Kandi, Edmundas Kazimieras Zavadskas, **Zeshui Xu**. Sustainable process selection using a hybrid fuzzy DEMATEL and fuzzy inference system. *International Journal of Fuzzy Systems*, 2022, 24(2): 1232-1249. (SCI)

655 Dejian Yu, Libo Sheng, **Zeshui Xu***. Knowledge diffusion trajectories in the hesitant fuzzy domain in the past decade: A citation-based analysis. *International Journal of Fuzzy Systems*, 2022, 24(5): 2382-2396. (SCI)

656 Wenyi Zeng, Rong Ma, Deqing Li, Qian Yin, **Zeshui Xu**. Distance measure of hesitant fuzzy sets and its application in image segmentation. *International Journal of Fuzzy Systems*, 2022, 24(7): 3134-3143. (SCI)

657 Bin Yu, Ruihui Xu, Yu Fu, **Zeshui Xu**. A novel dominance-based rough set model with advantage (disadvantage) neighborhoods and its applications to assess sales group. *International Journal of Fuzzy Systems*, 2022, 24(8): 3501-3512. (SCI)

658 Yixin Zhang, **Zeshui Xu**. An overview of studies based on the probabilistic-based decision-making information: Current developments, methodologies, applications and challenges. *International Journal of Fuzzy Systems*, 2021, DOI: 10.1007/s40815-021-01148-0. (SCI)

659 B. Farhadinia, **Zeshui Xu**. Hesitant fuzzy information measures derived from T-norms and S-norms and their application in pattern recognition. *Iranian Journal of Fuzzy Systems*, 2018, 15(5): 157-175. (SCI)

660 B. Farhadinia, **Zeshui Xu**. An extended hesitant group decision-making technique based on the prospect theory for emergency situations. *Iranian Journal of Fuzzy Systems*, 2020, 17(3): 51-68. (SCI)

661 Tiantian Lei, Yong Qin, **Zeshui Xu***, R.A. Borzooei. A bibliometric analysis of Iranian Journal of Fuzzy Systems (2007-2020). *Iranian Journal of Fuzzy Systems*, 2021, 18(5): 1-17. (SCI)

662 Na Zhao, **Zeshui Xu***, Fengjun Liu. Group decision making with dual hesitant fuzzy preference relations. *Cognitive Computation*, 2016, 8(6): 1119-1143. (SSCI, SCI)

663 B. Farhadinia, **Zeshui Xu**. Distance and aggregation-based methodologies for hesitant fuzzy decision making. *Cognitive Computation*, 2017, 9(1): 81-94. (SCI)

664 Wei Zhou, **Zeshui Xu**. Intuitionistic fuzzy three-factor ratio models and multi-preference fusion. *Cognitive Computation*, 2021, 13: 1246-1262. (SCI)

665 Hangyao Wu, Zeshui Xu. Cognitively inspired multi-attribute decision making methods under uncertainty: A state-of-the-art survey. *Cognitive Computation*, 2022, 14(2): 511-530. (SCI)

666 Bo Li, **Zeshui Xu***, Nan Hong. A bibliometric study and science mapping research of Intelligent decision. *Cognitive Computation*, 2022, 14(3): 989-1008. (SCI)

667 Xuecheng Fan, **Zeshui Xu***. Novel double-level multi-attribute group decision-making method based on intuitionistic fuzzy information and evidence reasoning. *Cognitive Computation*, 2023, DOI: 10.1007/s12559-023-10109-8. (SCI)

668 B. Farhadinia, **Zeshui Xu**. Ordered weighted hesitant fuzzy information fusion-based approach to multiple attribute decision making with probabilistic linguistic term sets. *Fundamenta Informaticae*, 2018, 159(4): 361-383. (SCI)

669 Jie Ding, **Zeshui Xu***, Huchang Liao. Consensus-reaching methods for hesitant fuzzy multiple criteria group decision making with hesitant fuzzy decision making matrices. *Frontiers of Information Technology & Electronic Engineering*, 2017, 18(11): 1679-1692. (SCI)

670 Wenning Hao, Xiaohan Yu, **Zeshui Xu**, Xiuli Qi. On paired prioritizations of criteria in the perspective of digraphs. *Journal of Systems Science and Systems Engineering*, 2015, 24(4): 466-485. (SCI)

671 Jie Gao, **Zeshui Xu***, Chao Zhong, Yunshu Mao. Multiplicative integral theory of

generalized orthopair fuzzy sets and its applications. *Journal of Systems Science and Systems Engineering*, 2022, 31: 457-479. (SCI)

672 Yiying Wang, **Zeshui Xu***. An emergency shelter location model based on the sense of security and the reliability level. *Journal of Systems Science and Systems Engineering*, 2023, DOI: https://doi.org/10. 1007/s11518-023-5550-3. (SCI)

673 Bin Zhu, **Zeshui Xu***, Meimei, Xia. Dual hesitant fuzzy sets. *Journal of Applied Mathematics*, Volume 2012 (2012), Article ID 879629, 13 pages. (SCI, ESI)

674 **Zeshui Xu***. Uncertain Bonferroni mean operators. *International Journal of Computational Intelligence Systems*, 2010, 3(6): 761-769. (SCI)

675 Hua Zhao, **Zeshui Xu***, Zeqing Yao. Interval-valued intuitionistic fuzzy derivative and differential operations. *International Journal of Computational Intelligence Systems*, 2016, 9(1): 36-56. (SCI)

676 Hai Wang, **Zeshui Xu***. Multi-groups decision making using intuitionistic-valued hesitant fuzzy information. *International Journal of Computational Intelligence Systems*, 2016, 9(3): 468-482. (SSCI, SCI)

677 Yanmin Liu, Hua Zhao, **Zeshui Xu***. An orthogonal clustering method under hesitant fuzzy environment. *International Journal of Computational Intelligence Systems*, 2017, 10(1): 663-676. (SSCI, SCI)

678 Hongbin Liu, Le Jiang, **Zeshui Xu***. Entropy measures of probabilistic linguistic term sets. *International Journal of Computational Intelligence Systems*, 2017, 11(1): 45-57. (SCI)

679 Zhenming Ma, Wei Yang, **Zeshui Xu**. Approach to the consistency and consensus of Pythagorean fuzzy preference relations based on their partial orders in group decision making. *Journal of Industrial and Management Optimization*, 2021,17(5): 2615-2638. (SCI)

680 **Zeshui Xu***. EOWA and EOWG operators for aggregating linguistic labels based on linguistic preference relations. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2004, 12(6): 791-810. (SCI)

681 **Zeshui Xu***. Models for multiple attribute decision making with intuitionistic fuzzy information. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2007, 15(3): 285-297. (SCI)

682 **Zeshui Xu***, Jian Chen. An overview of distance and similarity measures of intuitionistic fuzzy sets. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2008, 16(4): 529-555. (SCI, ESI)

683 **Zeshui Xu***. A method based on the dynamic weighted geometric aggregation operator for dynamic hybrid multi-attribute group decision making. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2009, 17(1): 15-33. (SCI)

684 **Zeshui Xu***. Correlated linguistic information aggregation. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2009, 17(5): 633-647. (SCI)

685 Meimei Xia, **Zeshui Xu**, Na Chen. Induced aggregation under confidence levels. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2011, 19(2): 201-227. (SCI)

686 Junyi Chai, James N.K. Liu, **Zeshui Xu**. A new rule-based SIR approach to supplier selection under intuitionistic fuzzy environments. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2012, 20(3): 451-471. (SCI)

687 Meimei Xia, Zeshui Xu. Managing hesitant information in GDM problems under fuzzy and multiplicative preference relations. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2013, 21(6): 865-897. (SCI)

688 Hua Zhao, **Zeshui Xu**. Intuitionistic fuzzy density-based aggregation operators and their applications to group decision making with intuitionistic preference relations. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014,

22(1): 145-169. (SCI)

689 Xiaohan Yu, **Zeshui Xu**, Qi Chen, Shousheng Liu. On ranking of intuitionistic fuzzy values based on dominance relations. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014, 22(2): 315-335. (SCI)

690 Yuan Jiang, **Zeshui Xu**[*], Jiuping Xu. Interval-valued intuitionistic multiplicative sets. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014, 22(3): 385-406. (SCI)

691 Huchang Liao, **Zeshui Xu**[*]. Satisfaction degree based interactive decision making method under hesitant fuzzy environment with incomplete weights. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014, 22(4): 553-572. (SCI)

692 Huchang Liao, **Zeshui Xu**[*]. Some algorithms for group decision making with intuitionistic fuzzy preference information. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014, 22(4): 505-529. (SCI)

693 Zhao Zhang, **Zeshui Xu**[*]. Analysis on aggregation function spaces. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2014, 22(5): 737-747. (SCI)

694 **Zeshui Xu**[*]. Additive intuitionistic fuzzy aggregation operators based on fuzzy measure. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2016, 24(1): 1-12. (SCI)

695 Feng Tian, Shousheng Liu, **Zeshui Xu**[*], Qian Lei. Diagram illustrations of aggregation operations for intuitionistic fuzzy values. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2016, 24(5): 631-646. (SCI)

696 Shan Yu, **Zeshui Xu**[*]. An approach based on definite integrals to multi-criteria decision making with correlative intuitionistic fuzzy information. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2016, 24(6): 807-829. (SCI)

697 Yue He, **Zeshui Xu**[*], Weiling Jiang. Probabilistic interval reference ordering sets in multi-criteria group decision making. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 2017, 25(2): 189-212. (SCI)

698 **Zeshui Xu**[*], Qingli Da. Projection method for uncertain multi-attribute decision making with preference information on alternatives. *International Journal of Information Technology & Decision Making*, 2004, 3(3): 429-434. (SCI)

699 **Zeshui Xu**[*]. An approach to group decision making based on incomplete linguistic preference relations. *International Journal of Information Technology & Decision Making*, 2005, 4(1): 153-160. (SCI).

700 **Zeshui Xu**[*]. An approach to pure linguistic multiple attribute decision making under uncertainty. *International Journal of Information Technology & Decision Making*, 2005, 4(2): 197-206. (SCI).

701 **Zeshui Xu**[*], Hui Hu. Projection models for intuitionistic fuzzy multiple attribute decision making. *International Journal of Information Technology & Decision Making*, 2010, 9(2): 267-280. (SCI, ESI)

702 **Zeshui Xu**[*]. Approaches to multi-stage multi-attribute group decision making. *International Journal of Information Technology & Decision Making*, 2011, 10(1): 121-146. (SSCI, SCI)

703 Meimei Xia, **Zeshui Xu**[*]. Some issues on multiplicative consistency of interval reciprocal relations. *International Journal of Information Technology & Decision Making*, 2011, 10(6): 1043-1065. (SCI)

704 Hua Zhao, **Zeshui Xu**[*], Zhong Wang. Intuitionistic fuzzy clustering algorithm based on Boole matrix and association measure. *International Journal of Information Technology & Decision Making*, 2013, 12(1): 95-118. (SCI)

705 Huchang Liao, **Zeshui Xu**[*], Meimei Xia. Multiplicative consistency of hesitant fuzzy preference relation and its application in group decision making. *International Journal of Information Technology & Decision Making*, 2014, 13(1): 47-76. (SCI, ESI, ESI hot

paper)

706 Meimei Xia, **Zeshui Xu**. A novel method for fuzzy multi-criteria group decision making. *International Journal of Information Technology & Decision Making*, 2014, 13(3): 497-519. (SSCI, SCI)

707 **Zeshui Xu**[*]. Ranking alternatives based on intuitionistic preference relation. *International Journal of Information Technology & Decision Making*, 2014, 13(6): 1259-1281. (SCI)

708 Na Chen, **Zeshui Xu**[*], Meimei Xia. The ELECTRE I multi-criteria decision making method based on hesitant fuzzy sets. *International Journal of Information Technology & Decision Making*, 2015, 14(3): 621-657. (SSCI, SCI)

709 Peijia Ren, **Zeshui Xu**[*], Jing Gu. Assessments of the effectiveness of an earthquake emergency plan implementation with hesitant analytic hierarchy process. *International Journal of Information Technology & Decision Making*, 2016, 15(6): 1367-1389. (SCI)

710 Na Zhao, **Zeshui Xu**[*]. Some approaches to constructing distance measures for hesitant fuzzy linguistic term sets with applications in decision-making. *International Journal of Information Technology & Decision Making*, 2018, 17(1): 103-132. (SSCI, SCI)

711 Wanying Xie, **Zeshui Xu**[*], Zhiliang Ren, Hai Wang. Probabilistic linguistic analytic hierarchy process and its application on the performance assessment of Xiongan new area. *International Journal of Information Technology & Decision Making*, 2018, 17(6): 1693-1724. (SCI)

712 Xunjie Gou, **Zeshui Xu**[*], Huchang Liao. Hesitant fuzzy linguistic possibility degree-based linear assignment method for multi-criteria decision making. *International Journal of Information Technology & Decision Making*, 2019, 18(1): 35-63. (SCI)

713 Xiaofang Zhang, **Zeshui Xu**[*], Peijia Ren. A novel hybrid correlation measure for probabilistic linguistic term sets and crisp numbers and its application in customer relationship management. *International Journal of Information Technology & Decision Making*, 2019, 18(2): 673-694. (SCI)

714 Dejian Yu, **Zeshui Xu***, Gang Kou, Shunshun Shi. Analysis of collaboration evolution in AHP researches: 1982-2018. *International Journal of Information Technology & Decision Making*, 2019, 18(3): 371-397. (SCI, ESI)

715 Xiaoli Tian, **Zeshui Xu***, Weike Zhang, Jing Gu. Decision models to find a promising start-up firm with QUALIFLEX under probabilistic linguistic circumstance. *International Journal of Information Technology & Decision Making*, 2019, 18(4): 1379-1402. (SCI)

716 Yue He, **Zeshui Xu***. An overview on recent researches of uncertain group decision making: Methodology, framework and development. *International Journal of Information Technology & Decision Making*, 2021, 20(1): 165-198. (SCI)

717 Chenyang Song, Liguo Wang, **Zeshui Xu***. An optimized logistic regression model based on the maximum entropy estimation under the hesitant fuzzy environment. *International Journal of Information Technology & Decision Making*, 2021, DOI: 10.11 42/S02196220221500371. (SCI)

718 **Zeshui Xu***, Zijing Ge, Xinxin Wang, Gang Kou. A look at the focus on big data for information technology and decision making during 1994 to 2020, 2022, *International Journal of Information Technology & Decision Making*, 2022, DOI: 10.1142/S02196220 22500298. (SCI)

719 Chenyang Song, **Zeshui Xu***, Bo Li. Water eutrophication evaluation based on the improved projection pursuit regression model under the hesitant fuzzy environment. *International Journal of Information Technology & Decision Making*, 2022, DOI: 10.11 42/S0219622023500074. (SCI)

720 Zhangxu Lin, Jian Lin, **Zeshui Xu**, Yihong Zhou. Multi-attribute decision making with independent trapezoidal intuitionistic fuzzy information based on risk orientation and similarity measure. *International Journal of Information Technology & Decision Makig*,

2023, DOI: 10.1142/S0219622023500578. (SCI)

721 Dejian Yu, **Zeshui Xu***. Characteristics of fuzzy researches: a bibliometric analysis based on Essential Science Indicators. *Journal of Multiple-valued Logic and Soft Computing*, 2019, 32: 1-25. (SCI)

722 Xinxin Wang, **Zeshui Xu***, Marinko Skare. A bibliometric analysis of Economic Research-Ekonomska Istraživanja (2007-2019). *Economic Research-Ekonomska Istraživanja*, 2020, 33(1): 865-886. (SSCI)

723 Xunjie Gou, **Zeshui Xu***, Wei Zhou. Interval consistency repairing method for double hierarchy hesitant fuzzy linguistic preference relation and application in the diagnosis of lung cancer. *Economic Research-Ekonomska Istraživanja*, 2021, 34(1): 1-20. (SSCI)

724 Yong Qin, Xinxin Wang, **Zeshui Xu**, Marinko Skare. The impact of poverty cycles on economic research: Evidence from econometric analysis. *Economic Research-Ekonomska Istraživanja*, 2021, 34(1): 152-171. (SSCI)

725 Xunjie Gou, **Zeshui Xu***, Wei Zhou, and Enrique Herrera-Viedma. The risk assessment of construction project investment based on prospect theory with linguistic preference orderings. *Economic Research-Ekonomska Istraživanja*, 2021, 34(1): 709-731. (SSCI)

726 Bo Li, **Zeshui Xu***. A comprehensive bibliometric analysis of financial innovation. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10.1080/1331677X.2021.1893 203. (SSCI)

727 Xinxin Wang, **Zeshui Xu***, Qiang Wen, Honghui Li. A multidimensional decision with nested probabilistic linguistic term sets and its application in corporate investment. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10.1080/ 1331677X.2021.1875 255. (SSCI)

728 Wenting Xue, **Zeshui Xu***, Xiaomei Mi. Dynamic reference point method with probabilistic linguistic information based on the regret theory for public health emergency decision-making. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10.1080/1331677X.2021.1875254. (SSCI)

729 Xinxin Wang, **Zeshui Xu***, Yong Qin, Marinko Skare. Foreign direct investment and economic growth: A bibliometric study of measurement approaches and results. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10.1080/1331677X.2021.1952 090. (SSCI)

730 Wanqing Li, Lanhao Li, **Zeshui Xu***, Xiaoli Tian. Large-scale consensus with self-confidence under probabilistic linguistic circumstance and its application in venture capital. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10.1080/1331677X.20 21.1932546. (SSCI)

731 Yuanhang Zheng, **Zeshui Xu***, Yuhang Tian. Granular computing and optimization model-based method for large-scale group decision-making and its application. *Economic Research-Ekonomska Istraživanja*, 2021, DOI: 10. 1080/1331677X.2021.2025125. (SSCI)

732 Xuecheng Fan, **Zeshui Xu**, Xiang Cheng. A double interaction-based financing group decision-making framework considering uncertain information and inconsistent assessment. *Economic Research-Ekonomska Istraživanja*, 2022, DOI: 10.1080/1331677X. 2022.2048196. (SSCI)

733 Duo Xu, **Zeshui Xu***, Shuixia Chen. A multi-channel cross-residual deep learning framework for news-oriented stock movement prediction. *Economic Research-Ekonomska Istraživanja*, DOI: 10.1080/133167 7X.2022.2106271. (SSCI)

734 Yu Qian, Zeshui Xu, Xunjie Gou, Marinko Škare. A survey on energy justice: A critical review of the literature. *Economic research-Ekonomska istraživanja*, 2022, DOI: 10.1080/1331677X.2022.2155860. (SSCI)

735 Peijia Ren, **Zeshui Xu**, Mohit Verma, Xiao-Jun Zeng, Huchang Liao, Xinxin Wang. Heterogeneous group decision making with thermodynamical parameters. *Economic Research-Ekonomska Istraživanja*, 2022, DOI: 10.1080/1331677X.2022.20523 33. (SSCI)

736 Lina Wang, **Zeshui Xu***. A coordination game model for risk allocation of a PPP project under the probabilistic linguistic terms with weakened hedges environment. *Economic Research-Ekonomska Istraživanja*, 2023, 36: 593-613. (SSCI)

737 Ying Ji, Yuan Xu, Shaojian Qu, **Zeshui Xu**, Zhong Wu, Mohamed Nabe. A novel two-stage multi-criteria decision-making method based on interval-valued Pythagorean fuzzy aggregation operators with self confidence levels. *Arabian Journal for Science and Engineering*, 2021, 46: 1561-1584. (SCI)

738 Shaojian Qu, Yuan Xu, Zhong Wu, **Zeshui Xu**, Ying Ji, Deqiang Qu, Yefan Han. An interval-valued best-worst method with normal distribution for multi-criteria decision-making. *Arabian Journal for Science and Engineering*, 2021, 46: 1771-1785. (SCI)

739 Xiaohan Yu, **Zeshui Xu***. Hierarchical aggregation methods based on weighted combination operators. *Information: An International Interdisciplinary Journal*, 2009, 12(1): 51-64. (SCI)

740 Hua Zhao, **Zeshui Xu***, Mingfang Ni, Feng Cui. Hybrid fuzzy multiple attribute decision making. *Information: An International Interdisciplinary Journal*, 2009, 12(5): 1033-1044. (SCI)

741 Qi Chen, **Zeshui Xu***, Shousheng Liu, Xiaohan Yu. A method based on interval-valued intuitionistic fuzzy entropy for multiple attribute decision making. *Information: An International Interdisciplinary Journal*, 2010, 13(1): 67-77. (SCI)

742 **Zeshui Xu***, Jian Tang, Shousheng Liu. An orthogonal algorithm for clustering intuitionistic fuzzy information. *Information: An International Interdisciplinary Journal*, 2011, 14(1): 65-78. (SCI)

743 Xiumei Zhang, **Zeshui Xu***, Xiaohan Yu. Shapley value and Choquet integral-based operators for aggregating correlated intuitionistic fuzzy information. *Information: An International Interdisciplinary Journal*, 2011, 14(6): 1847-1858. (SCI)

744 Shukuan Liu, **Zeshui Xu**. The return policy based on asymmetric Nash negotiation model in fuzzy environment. *Information: An International Interdisciplinary Journal*, 2012, 15(2): 497-506. (SCI)

745 **Zeshui Xu***. A survey and prospects of OWA aggregation with intuitionistic fuzzy information. *Information: An International Interdisciplinary Journal*, 2012, 15(11B): 4763-4776. (SCI)

746 **Zeshui Xu***. An interactive procedure for linguistic multiple attribute decision making with incomplete weight information. *Fuzzy Optimization and Decision Making*, 2007, 6(1): 17-27. (SCI)

747 **Zeshui Xu***. Some similarity measures of intuitionistic fuzzy sets and their applications to multiple attribute decision making. *Fuzzy Optimization and Decision Making*, 2007, 6(2): 109-121. (SCI, ESI)

748 **Zeshui Xu***. Multi-person multi-attribute decision making models under intuitionistic fuzzy environment. *Fuzzy Optimization and Decision Making*, 2007, 6(3): 221-236. (SCI)

749 **Zeshui Xu**, Ronald R. Yager. Intuitionistic and interval-valued intuitionistic fuzzy preference relations and their measures of similarity for the evaluation of agreement within a group. *Fuzzy Optimization and Decision Making*, 2009, 8(2): 123-139. (SCI, ESI)

750 **Zeshui Xu***. An integrated model-based interactive approach to FMAGDM with incomplete preference information. *Fuzzy Optimization and Decision Making*, 2010, 9(3): 333-357. (SCI)

751 **Zeshui Xu***, Xiaoqiang Cai. Recent advances in intuitionistic fuzzy information aggregation. *Fuzzy Optimization and Decision Making*, 2010, 9(4): 359-381. (SCI)

752 **Zeshui Xu***. Fuzzy ordered distance measures. *Fuzzy Optimization and Decision Making*, 2012, 11(1): 73-97. (SCI)

753 Xiumei Zhang, **Zeshui Xu***. A new method for ranking intuitionistic fuzzy values and its application in multi-attribute decision making. *Fuzzy Optimization and Decision Making*,

2012, 11(2): 135-146. (SCI)

754 Huchang Liao, **Zeshui Xu**[*]. A VIKOR-based method for hesitant fuzzy multi-criteria decision making. *Fuzzy Optimization and Decision Making*, 2013, 12(4): 373-392. (SCI, ESI)

755 Shukuan Liu, **Zeshui Xu**[*]. Stackelberg game models between two competitive retailers in fuzzy decision environment. *Fuzzy Optimization and Decision Making*, 2014, 13(1): 33-48. (SSCI, SCI)

756 Feng Shen, Jiuping Xu, **Zeshui Xu**. An automatic ranking approach for multi-criteria group decision making under intuitionistic fuzzy environment. *Fuzzy Optimization and Decision Making*, 2015, 14(3): 311-334. (SCI)

757 Shan Yu, **Zeshui Xu**[*], Jiuping Xu, Haifeng Liu. Indefinite integrals of generalized intuitionistic multiplicative functions. *Fuzzy Optimization and Decision Making*, 2015, 14(4): 459-476. (SCI)

758 Zhan Su, **Zeshui Xu**[*], Shousheng Liu. Probability distribution-based weights for weighted arithmetic aggregation operators. *Fuzzy Optimization and Decision Making*, 2016, 15(2): 177-193. (SCI)

759 Zhenghai Ai, **Zeshui Xu**[*], Qian Lei. Limit properties and derivative operations in the metric space of intuitionistic fuzzy numbers. *Fuzzy Optimization and Decision Making*, 2017, 16(1): 71-87. (SCI)

760 Xunjie Gou, **Zeshui Xu**[*]. Exponential operations for intuitionistic fuzzy numbers and interval numbers in multi-attribute decision making. *Fuzzy Optimization and Decision Making*, 2017, 16(2): 183-204. (SCI)

761 **Zeshui Xu**, Wei Zhou. Consensus building with a group of decision makers under the hesitant probabilistic fuzzy environment. *Fuzzy Optimization and Decision Making*, 2017, 16(4): 481-503. (SCI)

762 Yanmin Liu, Hua Zhao, **Zeshui Xu**[*]. The chain and substitution rules of interval-valued intuitionistic fuzzy calculus. *Fuzzy Optimization and Decision Making*, 2018, 17(3): 265-285. (SCI)

763 Dejian Yu, **Zeshui Xu**[*], Shu-Cherng Fang, Wanru Wang. A bibliometric analysis of Fuzzy Optimization and Decision Making (2002-2017). *Fuzzy Optimization and Decision Making*, 2019, 18(3): 371-397. (SCI)

764 Huchang Liao, Xiaomei Mi, **Zeshui Xu***. A survey of decision-making methods with probabilistic linguistic information: bibliometrics, preliminaries, methodologies, applications and future directions. *Fuzzy Optimization and Decision Making*, 2020, 19: 81-134. (SCI, ESI)

765 Xinxin Wang, **Zeshui Xu***, Xunjie Gou. A novel plausible reasoning based on intuitionistic fuzzy propositional logic and its application in decision making. *Fuzzy Optimization and Decision Making*, 2020, 19: 251-274. (SCI)

766 Xunjie Gou, **Zeshui Xu***, Xinxin Wang, Huchang Liao. Managing consensus reaching process with self-confident double hierarchy linguistic preference relations in group decision making. *Fuzzy Optimization and Decision Making*, 2021, 20: 51-79. (SCI)

767 Nana Liu, **Zeshui Xu***, Yue He, Xiao-Jun Zeng. An inverseprospect theory-based algorithm in extended incomplete additive probabilistic linguistic preference relation environment and its application in financial products selection. *Fuzzy Optimization and Decision Making*, 2020, doi: 10.1007/s10700-020-09348-3. (SCI)

768 Yayi Yuan, **Zeshui Xu***, Yixin Zhang. The DEMATEL-COPRAS hybrid method under probabilistic linguistic environment and its application in Third Party Logistics provider selection. *Fuzzy Optimization and Decision Making*, 2021, DOI: 10.1007/s10700-021-09358-9. (SCI)

769 Xinxin Wang, **Zeshui Xu***. Structure, trend and prospect of operational research: A scientific analysis for publications from 1952 to 2020 included in Web of Science database. *Fuzzy Optimization and Decision Making*, 2021, DOI: 10. 1007/s10700-021-

09380-x. (SCI)

770 Ruichen Zhang, **Zeshui Xu***, Xunjie Gou. ELECTRE II method based on the Cosine similarity to evaluate the performance of financial logistics enterprises under double hierarchy hesitant fuzzy linguistic environment. *Fuzzy Optimization and Decision Making*, 2021, DOI: 10.1007/s10700-022-09382-3. (SCI)

771 Xiang Li, Hai Wang, **Zeshui Xu***. Three-way investment decisions during the epidemic with Choquet-based bi-projection method. *Fuzzy Optimization and Decision Making*, 2022, DOI: 10.1007/s10700-022-09388-x. (SCI)

772 Zhiwen Xiao, Yong Qin, **Zeshui Xu**, Jurgita Antucheviciene, Edmundas Kazimieras Zavadskas. The journal *Buildings*: A bibliometric analysis (2011–2021). *Buildings*, 2022, 12(1): 37. (SCI)

773 Ling Pan, **Zeshui Xu***, Marinko Skare. Sustainable business model innovation literature: A bibliometrics analysis. *Review of Managerial Science*, 2022, DOI: 10.1007/s11846-022-00548-2. (SSCI)

774 Xunjie Gou, **Zeshui Xu***, Huchang Liao. Exponential operations of interval-valued intuitionistic fuzzy numbers. *International Journal of Machine Learning and Cybernetics*, 2016, 7(3): 501-518. (SCI)

775 Meimei Xia, **Zeshui Xu***. Some studies on properties of hesitant fuzzy sets. *International Journal of Machine Learning and Cybernetics*. 2017, 8(2): 489-495. (SCI)

776 Liuhao Chen, **Zeshui Xu***, Hai Wang, Shousheng Liu. An ordered clustering algorithm based on K-means and the PROMETHEE method. *International Journal of Machine Learning and Cybernetics*, 2018, 9(6): 917-926. (SCI)

777 Xue Luo, **Zeshui Xu***, Xunjie Gou. Exponential operational laws and new aggregation operators of intuitionistic fuzzy information based on Archimedean T-conorm and T-norm. *International Journal of Machine Learning and Cybernetics*, 2018, 9(8): 1261-1269. (SSCI, SCI)

778 Luanyi Yang, **Zeshui Xu***. Feature extraction by PCA and diagnosis of breast tumors using SVM with DE-based parameter tuning. *International Journal of Machine Learning and Cybernetics*, 2019, 10(3): 591-603. (SCI)

779 **Zeshui Xu***, Yue He, Xizhao Wang. An overview of probabilistic-based expressions for qualitative decision-making: Techniques, comparisons and developments. *International Journal of Machine Learning and Cybernetics*, 2019, 10(6): 1513-1528. (SCI)

780 Jie Gao, **Zeshui Xu***, Peijia Ren. An emergency decision making method based on the multiplicative consistency of probabilistic linguistic preference relations. *International Journal of Machine Learning and Cybernetics*, 2019, 10(7): 1613-1629. (SCI)

781 **Zeshui Xu***, Dejian Yu, Xizhao Wang. A Bibliometric overview of International Journal of Machine Learning and Cybernetics between 2010 and 2017. *International Journal of Machine Learning and Cybernetics*, 2019, 10(9): 2375-2387. (SCI)

782 Xiaofang Zhang, Xunjie Gou, **Zeshui Xu**, Huchang Liao. A projection method for multiple attribute group decision making with probabilistic linguistic term sets. *International Journal of Machine Learning and Cybernetics*, 2019, 10(10), 2515-2528. (SCI)

783 Dejian Yu, **Zeshui Xu***, Xizhao Wang. Bibliometric analysis of support vector machines research trend: a case study in China. *International Journal of Machine Learning and Cybernetics*, 2020, 11: 715-728. (SCI)

784 Chaoqun Li, Hua Zhao, **Zeshui Xu***. Hesitant fuzzy psychological distance measure. *International Journal of Machine Learning and Cybernetics*, 2020, 11: 2089-2100. (SCI)

785 Yang Li, **Zeshui Xu***, Xinxin Wang. A bibliometric analysis on deep learning during 2007 to 2019. *International Journal of Machine Learning and Cybernetics*, 2020, 11: 2807-2826. (SCI)

786 Bo Li, **Zeshui Xu***, Yixin Zhang. Two-stage multi-sided matching dispatching models based on improved BPR function with probabilistic linguistic term sets. *International*

Journal of Machine Learning and Cybernetics, 2021, 12: 151-169. (SCI)

787 Chenyang Song, **Zeshui Xu***. An improved TODIM method based on the hesitant fuzzy psychological distance measure. *International Journal of Machine Learning and Cybernetics*, 2021, 12: 973-985. (SCI)

788 Qian Liu, Hangyao Wu, **Zeshui Xu***. Consensus model based on probability K-means clustering algorithm for large scale group decision making. *International Journal of Machine Learning and Cybernetics*, 2021, 12: 1609-1626. (SCI)

789 Nan Hong, Xinxin Wang, **Zeshui Xu***. Probabilistic reliable linguistic term sets applied to investment project selection with the gained and lost dominance score method. *International Journal of Machine Learning and Cybernetics*, 2021, 12: 2163-2183. (SCI)

790 Xindi Wang, **Zeshui Xu***, Xunjie Gou. The interval probabilistic double hierarchy linguistic EDAS method based on natural language processing basic techniques and its application to hotel online reviews. *International Journal of Machine Learning and Cybernetics*, 2022, 13: 1517-1534. (SCI)

791 Lina Wang, **Zeshui Xu***, Zhinan Hao. Consistency measure of the WH-PLPRs under the risk identification of PPP projects. *International Journal of Machine Learning and Cybernetics*, 2022, 13: 3441-3461. (SCI)

792 **Zeshui Xu***, Jian Chen. Ordered weighted distance measure. *Journal of Systems Science and Systems Engineering*, 2008, 17(4): 432-445. (SCI)

793 Xiaohan Yu, **Zeshui Xu***, Xiumei Zhang. Uniformization of multigranular linguistic labels and their application to group decision making. *Journal of Systems Science and Systems Engineering*, 2010, 19(3): 257-276. (SCI)

794 Meimei Xia, **Zeshui Xu***. Some new similarity measures for intuitionistic fuzzy values and their application in group decision making. *Journal of Systems Science and Systems Engineering*, 2010, 19(4): 430-452. (SCI)

795 **Zeshui Xu***, Qi Chen. A multi-criteria decision making procedure based on interval-valued intuitionistic fuzzy Bonferroni means. *Journal of Systems Science and Systems Engineering*, 2011, 20(2): 217-228. (SCI, ESI)

796 Shan Yu, **Zeshui Xu***. Aggregation and decision making using intuitionistic multiplicative triangular fuzzy information. *Journal of Systems Science and Systems Engineering*, 2014, 23(1): 20-38. (SCI)

797 Hua Zhao, **Zeshui Xu***, Shousheng Liu. Dual hesitant fuzzy information aggregation with Einstein t-conorm and t-norm. *Journal of Systems Science and Systems Engineering*, 2017, 26(2): 240-264. (SCI)

798 **Zeshui Xu***. Intuitionistic fuzzy hierarchical clustering algorithms. *Journal of Systems Engineering and Electronics*, 2009, 20(1): 90-97. (SCI)

799 **Zeshui Xu***, Hui Hu. Entropy-based procedures for intuitionistic fuzzy multiple attribute decision making. *Journal of Systems Engineering and Electronics*, 2009, 20(5): 1001-1011. (SCI)

800 **Zeshui Xu***. Interactive group decision making procedure based on uncertain multiplicative linguistic preference relations. *Journal of Systems Engineering and Electronics*, 2010, 21(3): 408-415. (SCI)

801 **Zeshui Xu***, Junjie Wu. Intuitionistic fuzzy c-means clustering algorithms. *Journal of Systems Engineering and Electronics*, 2010, 21(4): 580-590. (SCI)

802 Wei Zhou, **Zeshui Xu***. Modeling and applying credible interval intuitionistic fuzzy reciprocal preference relations in group decision making. *Journal of Systems Engineering and Electronics*, 2017, 28(2): 301-314. (SCI)

803 Na Chen, **Zeshui Xu***, Meimei Xia. Hierarchical hesitant fuzzy K-means clustering algorithm. *Applied Mathematics Journal of Chinese Universities Series B*, 2014, 29(1): 1-17. (SCI)

804 Na Zhao, **Zeshui Xu***. A group decision making method based on double hesitant linguistic preference relations. *Journal of Southeast University*, 2016, 32(2): 240-249.

(SCI)

805 Shan Yu, **Zeshui Xu**[*], Shousheng Liu. Derivatives and differentials for multiplicative intuitionistic fuzzy information. *Applied Mathematics Journal of Chinese Universities Series B*, 2017, 32(4): 443-461. (SCI)

806 **Zeshui Xu**[*]. A method based on IA operator for multiple attribute group decision making ith uncertain linguistic information. *Lecture Notes in Artificial Intelligence*, 2005, 3613: 684-693. (SCI)

807 **Zeshui Xu**[*]. An approach based on similarity measure to multiple attribute decision making with trapezoid fuzzy linguistic variables. *Lecture Notes in Artificial Intelligence*, 2005, 3613: 110-117. (SCI)

808 **Zeshui Xu**[*]. Dependent OWA operators. *Lecture Notes in Artificial Intelligence*, 2006, 3885: 172-178. (SCI)

809 **Zeshui Xu**[*]. Integrating multiple types of incomplete linguistic preference relations in multi-person decision making. *Lecture Notes in Artificial Intelligence*, 2006, 4223: 300-309. (SCI)

810 **Zeshui Xu**[*]. On correlation measures of intuitionistic fuzzy sets. *Lecture Notes in Computer Science*, 2006, 4224: 16-24. (SCI)

811 Shahzad Faizi, Tabasam Rashid, **Zeshui Xu**, Sohail Zafar. Distance measures for hesitant intuitionistic fuzzy linguistic term sets based on risk factor parameter. *International Journal of Computers and Applications*, 2019, 41(6): 418-435. (SCI)

812 Zhiqiang Liao, Huchang Liao, Xunjie Gou, **Zeshui Xu**, Edmundas Kazimieras Zavadskas. A hesitant fuzzy linguistic Choquet integral-based MULTIMOORA method for multiple criteria decision making and its application in talent selection. *Economic Computation and Economic Cybernetics Studies and Research*, 2019, 52(2): 113-130. (SSCI)

813 Dejian Yu, **Zeshui Xu***, Jurgita Antuchevičienė. Bibliometric analysis of the Journal of Civil Engineering and Management between 2008 and 2018. *Journal of Civil Engineering and Management*, 2019, 25(5): 402-410. (SSCI)

814 Jianing Zhao, Yubiao Pan, Huizhen Zhang, Mingwei Lin, Xin Luo, **Zeshui Xu**. InPlaceKV: In-place update scheme for SSD-based KV storage systems under update-intensive worklaods. *Cluster Computing*, 2023, https://doi.org/10.1007/s10586-023-04031-9. (SCI)

815 Zhongmin Pu, **Zeshui Xu**, Xinxin Wang, Marinko Skare. A systematic review of the literature and bibliometric analysis of governance of family firms. *Journal of Business Economics and Management*, 2022, DOI: 10.3846/jbem.2022.18309. (SSCI)

816 Anran Xiao, **Zeshui Xu***, Yong Qin, Marinko Škare. A comprehensive bibliometric analysis of big data in entrepreneurship research. *Engineering Economics*, DOI: 10.5755/j01.ee.34.2.30643. (SSCI)

817 Yong Qin, **Zeshui Xu**, Xinxin Wang, Marinko Škare. The effects of financial institutions on the green energy transition: A cross-sectional panel study. *Economic Analysis and Policy*, 2023, 78: 524-542. (SSCI)

818 Duo Xu, **Zeshui Xu***. Bibliometric analysis of decision-making in healthcare management from 1998 to 2021. *International Journal of Healthcare Management*, 2022, DOI: 10.1080/20479700.2022.2134641. (SCI)

819 Jie Gao, Yang Feng, **Zeshui Xu***, Qianlin Luo. Analysis of strategic deviance decisions considering investors' risk aversion and the industrial earnings forecast errors. *International Entrepreneurship and Management Journal*. DOI: 10.1007/s11365-022-00827-0. (SSCI)

"*"denotes the corresponding author.