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## On inverse problem of Choquet integral

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The Choquet integral is a popular tool for dealing with multiple criteria decision making. In practice, if we have a fuzzy measure on the set of criteria, we can use Choquet integral to rank alternatives. In this paper, we consider the inverse problem of Choquet integral: Given a ranking of alternatives, does there exists a fuzzy measure by which we can get the ranking through Choquet integral?

### Biography

Zeshui Xu received the PhD degree in management science and engineering from Southeast University, Nanjing, China, in 2003. From April 2003 to May 2005, he was a Postdoctoral Researcher with the School of Economics and Management, Southeast University. From October 2005 to December 2007, he was a Postdoctoral Researcher with the School of Economics and Management, Tsinghua University, Beijing, China. He is currently a Chair Professor with the PLA University of Science and Technology, Nanjing. He has authored five monographs: Uncertain Multiple Attribute Decision Making: Methods and Applications (Tsinghua Univ. Press), Intuitionistic Fuzzy Information Aggregation: Theory and Applications (Science, Springer-Verlag), Linguistic Decision Making: Theory and Methods (Science, Springer-Verlag), Intuitionistic Fuzzy Aggregation and Clustering (Springer-Verlag), Intuitionistic Fuzzy Preference Modeling and Interactive Decision Making (Springer-Verlag). He has contributed more than 320 journal articles to professional journals, including IEEE Transactions on Fuzzy Systems, IEEE Transactions on Systems, Man, and Cybernetics-Part A, IEEE Transactions on Systems, Man, and Cybernetics-Part B, European Journal of Operational Research, Journal of Optimization Theory and Applications, Information Sciences, Omega, Decision Support Systems, International Journal of Intelligent Systems, International Journal of Approximate Reasoning, International Journal of General Systems, Fuzzy Sets and Systems, Fuzzy Optimization and Decision Making, Journal of the Operational Research Society, Computers & Industrial Engineering, Information Fusion, Group Decision and Negotiation, Expert Systems with Applications, Soft Computing, Applied Soft Computing, Control and Cybernetics, International Journal of Systems Science, Knowledge-Based Systems, Applied Mathematical Modelling, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, International Journal of Information Technology and Decision Making, etc. The published papers have been cited over 15700 times. He is also peer reviewer for more than 140 professional journals.

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