

## Special Issue

# Causal Inference in Recommender Systems

### Message from the Guest Editors

The recommender system serves many users with personalized information filtering across a wide spectrum of online applications such as e-commerce, search engines, and social media. Recent years have witnessed the success of incorporating causal inference theories and techniques into recommender systems to enhance the user experience regarding the accuracy of user preference modeling and estimation, as well as the fairness, unbiasedness, and transparency of recommendations. In addition, these recommender systems also draw upon concepts from entropy and information theory. The connection between these directions indicates opportunities to further improve the performance of recommender systems. For example, recommender systems can better understand and predict user behavior by considering the entropy of user preferences and the information gain obtained through causal inference models. This Special Issue is aimed at bringing together the most contemporary achievements and breakthroughs in the field of recommender systems that embrace causal inference and information theory.

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### Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

*Entropy* is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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