

## A Type-2 Fuzzy Model for Link Prediction in Social Network

**Authors :** Mansoureh Naderipour, Susan Bastani, Mohammad Fazel Zarandi

**Abstract :** Predicting links that may occur in the future and missing links in social networks is an attractive problem in social network analysis. Granular computing can help us to model the relationships between human-based system and social sciences in this field. In this paper, we present a model based on granular computing approach and Type-2 fuzzy logic to predict links regarding nodes' activity and the relationship between two nodes. Our model is tested on collaboration networks. It is found that the accuracy of prediction is significantly higher than the Type-1 fuzzy and crisp approach.

**Keywords :** social network, link prediction, granular computing, type-2 fuzzy sets

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