publications and $C3$ contains researchers with more than 15 publications. The experimental results are show in Figure 5.

From Figure 5, we can see significant differences relating to the effect on different sets of researchers even though they show a similar trends in precision, recall and F1 score respectively. In Figure 5(c), the AVER achieves the highest value of 16.24% for F1 score at point 9 when making academic venue recommendation for the researchers with 2 to 8 publications. The results mean that, AVER can perform better at recommending academic venues for researchers with fewer publications, i.e. junior researchers, which meets our innovative intention of recommending academic venues for effective research and collaboration.

# 5. CONCLUSION

In this paper, we focused on academic venue recommendation for researchers based on the big scholarly data which is necessary in current academia. To this end, we proposed a novel academic venue recommendation model called AVER, which exploits three academic factors (i.e. co-publication frequency, weight of relations and researchers' academic level) to define transfer matrix with bias which drives a random walk with restart model running on co-publication network. We conducted extensive experiments on a subset of DBLP data set to evaluate the performance of AVER in comparison to other state-of-the-art approaches: basic RWR, topic-based approaches and friends-based approaches. The experimental results show that, AVER outperforms the other approaches in terms of precision, recall and F1 score. According to the extended experiment, AVER performs better at recommending academic venues for researchers with fewer publications, i.e. junior researchers.

Nonetheless, there is still room for future study in this direction. We only exploited three academic factors in co-publication network. There are many other features such as citation relations that need to be explored in AVER. As a future work, more experiments should be performed on other academic data sets.

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