

Abstract Submitted  
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**Empirical study on Yangzhou University library borrowing network**<sup>1</sup> JIAN-RU TAO, HUI CHANG, DA-REN HE, Yangzhou University — We have done an empirical investigation on the Yangzhou University library borrowing data of the physics books by using complex network description. In the network the nodes are defined as books. Two nodes are connected by an edge when they relate to a common scientific subject. A scientific subject is defined as an act. The node weight is defined as the number of students who borrowed this book. Some empirical statistical results have been obtained. Both the node degree distribution and the act degree distribution and the dependence of the clustering coefficient on both of the degrees show exponential decays. The assortativity shows a positive number,  $r = 0.73$ . The distribution of the node weights shows a SPL function, which indicates an interpolation between a power law and an exponential decay. Based on these results we try to give some suggestions and advices on the management of physical books in the libraries.

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