Empirical study on human acupuncture point network\(^1\) JIAN LI, DAN SHEN, HUI CHANG, DA-REN HE, Yangzhou University — Chinese medical theory is ancient and profound, however is confined by qualitative and faint understanding. The effect of Chinese acupuncture in clinical practice is unique and effective, and the human acupuncture points play a mysterious and special role, however there is no modern scientific understanding on human acupuncture points until today. For this reason, we attend to use complex network theory, one of the frontiers in the statistical physics, for describing the human acupuncture points and their connections. In the network nodes are defined as the acupuncture points, two nodes are connected by an edge when they are used for a medical treatment of a common disease. A disease is defined as an act. Some statistical properties have been obtained. The results certify that the degree distribution, act degree distribution, and the dependence of the clustering coefficient on both of them obey SPL distribution function, which show a function interpolating between a power law and an exponential decay. The results may be helpful for understanding Chinese medical theory.

\(^1\)supported by Chinese National Natural Science Foundation, No. 10635040 and 70671089