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Unified Model for Generation Complex Networks with Utility Preferential Attachment

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Abstract: In this paper, based on the utility preferential attachment, we propose a new unified model to generate different network topologies such as scale-free, small-world and random networks. Moreover, a new network structure named super scale network is found, which has monopoly characteristic in our simulation experiments. Finally, the characteristics of this new network are given.

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Key words: generation complex networks, utility preferential attachment

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