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## Evolutionary Dynamics of Complex Communications Networks

### Chapter 1.2 – Fundamentals of Complex Networks

Until recently, most network design techniques employed a bottom-up approach with lower protocol layer mechanisms affecting the development of higher ones. This approach, however, has not yielded fascinating results in the case of wireless distributed networks.

Addressing the emerging aspects of modern network analysis and design, [Evolutionary Dynamics of Complex Communications Networks](#) introduces and develops a top-bottom approach where elements of the higher layer can be exploited in modifying the lowest physical topology — closing the network design loop in an evolutionary fashion similar to that observed in natural processes.

This book provides a complete overview of contemporary design approaches from the viewpoint of network science and complex/social network analysis. A significant part of the text focuses on the classification and analysis of various network modification mechanisms for wireless decentralized networks that exploit social features from relevant online social networks. Chapter 1.2 focuses on the fundamentals of complex networks and complex network taxonomy and examples.

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