

On network Coding for Wireless Networks

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Abstract:

Network coding has emerged as an effective way to increase the throughput and reliability of networks by manipulating data algebraically in the interior of networks. In this talk we consider different uses of network coding for wireless networks. We show that distributed approaches to network coding can provide provable optimality in the case of multicast connections, but can also be used to increase throughput or reduce delay in point-to-point connections. We discuss the connection of network coding with optimization and present some new directions of research.