University of Rochester Department of Electrical and Computer Engineering Colloquia

Wireless and Mobile Systems: Changing the Rules of the Game

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Monday, March 17th 10:45 AM 11:45 AM CSB 209

Abstract: Mobile and wireless technologies have had a profound impact on the entire world faster than any other technology in the history of mankind. Over the past decade the wireless physical layer has seen rapid innovations e.g. rateless codes, multi-user MIMO and full-duplex communication. These innovations challenge several long-held models and assumptions that have been taken for granted in designing wireless and mobile systems. New wireless technologies such as near field communications and whitespaces bring a completely different set of constraints and requirements. With these exciting developments, it is crucial to revisit existing and long held approaches and notions in wireless system design. In this talk, in order to demonstrate how a single physical layer idea, self-interference