



Departmental Colloquium Electrical and Computer Engineering

State-Dependent Communication Enhances Network Synchronization

Tuesday, October 8, 2024

2:00 pm 3:00 pm

Olin 202

Reception to follow in Olin 204

3:00 pm – 3:30 pm

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ABSTRACT: Synchronization occurs in many natural and artificial systems, which are often described as networks. Although synchronization requires communication between the individual systems or oscillators that form the network, the communication strategies that are responsible for synchronization are not always well understood. Most models of network synchronization assume that the individual systems that are connected are either permanently or intermittently communicating with one another. However, in most biological systems communication occurs when the individual oscillators reach a particular state, for example neurons in the brain transmit signals to the