

ICMNS 2026 Plenary Talk

McIntyre Medical Building
Palmer Howard Amphitheatre
Room 522

Carina Curto
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Friday, June 5
1:30-2:30 PM

Title: Network Dominoes: Composable Building Blocks for Recurrent Networks

Abstract: Ever since the Hopfield model, recurrent networks have provided a conceptual cornerstone for our understanding of how the brain stores memories and processes information. The nonlinear dynamics, however, are notoriously difficult to understand. Here we take a bottom-up approach, where small network building blocks can be composed to yield complex attractors with predictable dynamics. This approach yields insights into how inhibition and modularity can be used to shape and tame neural activity in real brains. We will also see some implementations of these dynamics in neuromorphic hardware.