

Department of Physics and Astronomy Colloquium Series

Tuesday, December 2nd, 2025, 2:30pm in PSE 317

Speaker: Shohini Ghose

Institution: Laurier University

Title: Hunting for Quantum Butterflies

Abstract:

As quantum technologies increase in scale and complexity, new challenges arise in understanding and controlling large-scale quantum systems. Fundamental questions remain about the nature of quantum information, quantum-classical correspondence and the connection between chaos theory and quantum mechanics. This talk will provide an overview of our recent studies of quantum chaos, quantum correlations and practical quantum information processing, including the first simulations of chaos on a programmable quantum computer, and the largest Hadamard matrix computed using a quantum processor.