

The Math/Stats Colloquium Department of Mathematics and Statistics San José State University





Quynh-Anh Nguyen Univ. of Indianapolis Intermittent Synchronization in Gamma Rhythm NOV 03, 2021, VIA ZOOM

**Abstract:** The theory of dynamical systems plays an important role in understanding many phenomena, and the brain is certainly one of the many examples. In this talk, I will first go over important techniques from dynamical systems used to model neuronal activities. I will then discuss my research in intermittent synchronization. Neuronal synchronization is a foundational block for many cognitive functions, and the brain goes in and out of synchronization over time. The timing of synchronization may have a functional implication on healthy and diseased brain.

*Background:* One course in each of differential equations and linear algebra.

About the speaker: Quynh-Anh Nguyen graduated from SJSU in 2013 (BS) and from U. Iowa in 2019 (PhD). She recently finished her postdoc at IUPUI and started a faculty position at the Univ. of Indianapolis. She is interested in using math to understand the bridge between neuronal activities and cognitive functions.

COLLOQUIUM BROADCAST VIA ZOOM, 4:15PM PACIFIC EMAIL tim.hsu@sjsu.edu FOR AN INVITATION

For our full schedule, see: http://www.timhsu.net/colloq/