

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





Tim Hsu San José State University Combinatorial game theory in six (or so) games

Wed May 11, 2022, via Zoom

Abstract: Combinatorial game theory is the mathematical study of two-player games that are both without random elements (no dice or cards) and also must always end with one player winning (no stale-mates, circular patterns, etc.). Examples range from the game of NIM to the childhood game of dots-and-boxes to endgames in go and chess.

I'll introduce the mathematical theory of combinatorial games via six (give or take) examples, to be played by folks attending the talk, and also describe some problems that I'd like to work on with students. Students, come spend an hour and maybe leave with a research project! (And non-students, come ready to have some fun.)

Background: No prior knowledge needed — just be ready to play.

About the speaker: Tim Hsu received his Ph.D. from Princeton University and held postdoctoral positions at U. Michigan and Pomona College before coming to SJSU, where he has been since 2001. His research is in several areas of algebra and combinatorics, including geometric group theory and combinatorial game theory.

COLLOQUIUM BROADCAST VIA ZOOM, 3:00PM PACIFIC EMAIL tim.hsu@sjsu.edu FOR AN INVITATION

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