



The Math Colloquium
Department of Mathematics
San José State University



Tina Yu
Memorial Univ. (visiting SJSU)

*Evolutionarily stable sets
in quantum penny flip games*

SEPTEMBER 18, 2013, MH320

Abstract: This work investigates the evolutionary stability of classical and quantum strategies in the quantum penny flip games. In particular, we developed an evolutionary game theory model to conduct a series of simulations where a population of mixed classical strategies from the evolutionary stable set of the game was invaded by quantum strategies. We found that quantum strategies successfully invaded the mixed classical strategies in some cases. In other cases, the mixed classical strategies remain stable in the population.

Background: Students should have basic knowledge of linear algebra, statistics, simulation and data analysis.

About the speaker: Tina Yu is an Associate Professor in the Department of Computer Science at Memorial University of Newfoundland, Canada. Her current research interests are in quantum information processing and in applying machine learning and evolutionary algorithms to create intelligent systems for education, finance and energy applications.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>