The Math Colloquium
Department of Mathematics
San José State University

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Saint Mary's College of California

Japanese Ladders and the Braid Group

OCTOBER 10, 2012, MH320

Abstract: Japanese Ladders are a visual technique used to construct a bijective map from a set to itself for purposes such as assigning grab bag gift rules. They also entail a very enjoyable puzzle game. We will briefly explore the rules of this game and slightly modified versions. We will also investigate the underlying mathematics, which leads to fascinating generalizations of permutations and of a well-known short exact sequence used with the braid group.

Background: Students should have had a first semester of Calculus and general interest in mathematics. Knowledge of basic Abstract Algebra will be helpful, but will not be expected.

About the speaker: Michael Allocca has been an assistant professor of mathematics at Saint Mary's College since 2011. He earned his Ph.D. from North Carolina State University and his primary research interests are in homotopy algebras, which have applications in areas of theoretical physics such as closed field string theory. He also has a growing interest in applied and computational topology. He loves baseball, offering exhaustive support of his beloved New York Mets.

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/