



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



Richard M. Low

SJSU

*Constructing $\mathbb{Z}_n$ -magic Graphs
via the Combinatorial Nullstellensatz*

WED NOV 09, 2022, MH320

Abstract: A graph is $\mathbb{Z}_n$ -magic if there exists an edge labeling f using elements of $\mathbb{Z}_n \setminus \{0\}$ which induces a constant vertex labeling of the graph. In this talk, we use the Combinatorial Nullstellensatz to construct nontrivial classes of $\mathbb{Z}_p$ -magic graphs, for prime $p \geq 3$. For these graphs, some lower bounds on the number of distinct $\mathbb{Z}_p$ -magic labelings are also established.

Background: The talk will be accessible to the general mathematical audience. Some exposure to abstract algebra will be helpful.

About the speaker: Richard Low is a Lecturer in the SJSU Department of Mathematics and Statistics. His research interests include combinatorics, graph theory and group theory.

SNACKS SERVED OUTSIDE BETWEEN MACQUARRIE HALL AND
SWEENEY HALL AT 2:40PM (WEATHER PERMITTING)
TALK STARTS AT 3:00PM

For more information, see our full schedule at:

<http://www.timhsu.net/colloq/>