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

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SJSU

New Diagonal Graph Ramsey Numbers

Wed Sep 20, 2023, MH320

Abstract: Let G and H be connected simple graphs. The graph Ramsey number $R(G, H)$ is defined to be the minimum n where every 2-edge-coloring of K_n contains a monochromatic red G or a monochromatic blue H. For various G, we extend the table of diagonal graph Ramsey numbers $R(G, G)$ in *An Atlas of Graphs*. This is accomplished by first converting the calculation of $R(G, G)$ into a satisfiability problem in propositional logic. Then, mathematical arguments and scientific computing are used to calculate $R(G, G)$. Finally, new diagonal graph Ramsey numbers are calculated for some unicyclic graph classes, using pencil and paper.

Background: No particular background necessary.

About the speaker: Richard Low received his Ph.D. from Western Michigan University and is a Lecturer at SJSU. His current research interests are in the areas of combinatorics, graph theory and group theory.

Snacks in MacQuarrie Hall 331B at 2:40pm
Talk starts at 3:00pm

For more information, see our full schedule at:

`http://www.timhsu.net/colloq/`