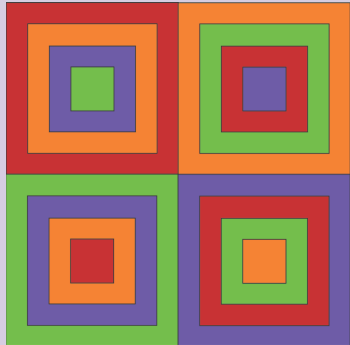


Swarthmore College Math/Stat Colloquium



What (quilting)
circles can be squared?

A few years ago, I received an email from a friend's mom with a question about a problem she was having with her quilting circle: is it possible to find a way to pass quilts among five people so that each person works on each quilt, and no person passes to the same person twice? The pursuit of an answer led me to row complete Latin squares. Latin squares are combinatorial objects with a thousand year history and modern applications in experimental design, error correcting codes, and entertainment, in the form of Sudoku. The journey doesn't stop there, though; this talk will describe how one simple problem connects quilting, taste testing, combinatorics, group theory, graph theory, number theory, music, Tom and Jerry, and the power/limits of modern computing. We will begin with a quilt and conclude with a number of related open problems.



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0	1	3	2
1	2	0	3
2	3	1	0
3	0	2	1

Tuesday, October 30, 2018
SC 101, Refreshments 4:15pm, Lecture 4:30pm