

The Mathematical Sciences Undergraduate Colloquium

presents...

The Mathematics of



Speed-Solving Rubik's Cube

Dr. Morley Davidson

Date: Friday, October 19, 2007

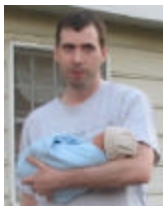
Time: 4:00 PM

Place: MSB 115

Abstract:

In this talk we will examine the two most popular speed methods, CFOP and Petrus, popularized in the 1980s by Jiri Fridrich and Lars Petrus. One method tends to go slightly faster in the world's fastest hands, whereas the other has the advantage of saving moves when more time is allowed. We will analyze a variant method lying at the interface between speed-solving and fewest-moves-solving, showing that it averages just under 40 moves, a long-standing dream of speed-solvers. The catch is that it requires many more, but perhaps not too many, memorized move-sequences. The talk will end with a discussion of the problem of how to (mathematically) classify and then memorize so many move-sequences, showing that it is probably not so difficult as often advertised.

About the Speaker:



Dr. Davidson is an Associate Professor of Mathematics at Kent State University. He received his Ph.D. from the University of Michigan in 1995 and held postdoctoral positions at the Institute for Advanced Study in Princeton and the University of Georgia before arriving at Kent in 1997. He is the department's new Coordinator of Undergraduate Studies and is a new father, and he may well fall asleep during his own talk.

Pizza and Drinks will be served!

More info about Undergrad Colloquium: <http://www.math.kent.edu/~white/ugcolloq/>