



The Math Colloquium  
Department of Mathematics  
San José State University



# Satyan Devadoss

Williams College

*Robot Motions and Collisions*

NOVEMBER 4, 2009, MH320

**Abstract:** What is the space of all possible ways robots can move in a room? What happens when we place obstacles in their path? We not only look at the important subject of robot motions but look at the ideas behind robot collisions. This leads to worlds of polyhedra, tilings, string theory, and phylogenetic trees.

This talk is heavily based on pictures, and absolutely no mathematical background is needed. Undergraduates at all levels are encouraged to attend.

**About the speaker:** Satyan Devadoss is an associate professor of mathematics at Williams College, where he has designed and taught courses in computational geometry, geometric group theory and knot theory since 2002. His research ranges from particle collisions and polyhedra in mathematics, to origami design and cartography in computer science, to manufacturing and modeling in studio art.

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/>

*Note:* This is part three of our special two-part series on abstract algebra, topology, and killer robots. All members of the SJSU mathematical community are urged to attend so they may better learn to protect themselves from the inevitable robot uprising against humanity.