MATH CLUB
PRESENTS

Professor Peter Mayr

Rubik's cube versus Sudoku - the million dollar question

					2	7	5	
	1	8		9				
4	9							
	3							8
			7			2		
				3				9
7								
5							8	

Solving Rubik's cube or filling in a Sudoku is not about computation with numbers. Still these puzzles lead to a number of interesting mathematical problems and actual research in algebra, combinatorics and computer science. We will consider a few of them.

How many different Sudokus are there? How do you construct a Sudoku such that it has exactly one solution? What is the smallest number of moves for Rubik's cube to solve any given configuration? Finally, is it harder to solve the cube or Sudokus? This leads to the most famous open question in computer science: Is P equal to NP? That is, is any problem for which a given solution is easily verifiable also easily solvable?

Wednesday, November 16, 2016
MATH 350
5pm

come enjoy pizza and drinks