Michigan Math Club Meeting virtually for Fall 2020

Thursdays at 4pm EDT

Clever tiling proofs and when they no longer work

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Tilings have given rise to a very large number of mathematical puzzles. One of the most well-known is the question of whether or not a checkerboard with opposite corners removed can be covered with dominoes. The solution is very clever and can be generalized to solve some similar puzzles. But can it solve all similar puzzles? John Conway and Jeff Lagarias proved in 1988 that it cannot. In this talk, we'll look at that proof and at a more powerful technique for solving tiling puzzles that was also developed by Conway and Lagarias.