## Michigan Math Club Thursday at 4pm in the Commons Free Pizza and Pop

## Expander Graphs Matthew Stover

Abstract for 13 Sept. 2012

Expander graphs are families of graphs that are `sparse' and `highly connected'. That is, the graph has a relatively small number of edges, but is also very difficult to disconnect by removing some vertices. These families have countless applications to computer science, transportation networks, and error correcting codes. I will first discuss examples, and how one measures expansiveness. Then I will explain how one can construct expander families using the geometry of surfaces.