

# Michigan Math Club

Meeting [virtually](#) for Fall 2020  
Thursdays at 4pm EDT



## Thinking Outside the Polygon: Frieze Patterns

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What lies at the intersection of architecture, combinatorics, algebra, and geometry? To find out, we will follow in the footsteps of Conway and Coxeter to explore frieze patterns. These objects discretely capture the symmetry popularized by the ancient Greeks, and even in the simplest case embody the relations of Gauss's *pentagramma mirificum*. Our story will begin in the 1970s, when Conway and Coxeter published a series of 35 questions (and shortly thereafter, an answer key) connecting frieze patterns to triangulations of polygons. Though these remained in the realm of recreational mathematics for a while, frieze patterns have had a recent revival in mainstream mathematics. We will briefly discuss their rich relationship with several growing areas of mathematics, casting light on the importance of looking through combinatorial, algebraic, and geometric lenses.

