



UNIVERSITY OF ROCHESTER

Department of Mathematics Colloquium Series

ABSTRACT

A plane tiling is a collection of plane figures that fills the plane (or a part of the plane) with no overlaps and no gaps. A mosaic is a real-world example of a plane tiling. The speaker will survey some of the highlights of the theory of plane tilings, focusing on tiling a bounded region of the plane with finitely many tiles. A well-known example, though not very mathematical, is a jigsaw puzzle. The speaker will consider such questions as the following:

1. Is there a tiling?
2. How many tilings are there?
3. About how many tilings are there?
4. Is a tiling easy to find?
5. Is it easy to prove or to convince someone that a tiling does not exist?
6. What does a typical tiling look like?

The speaker will also point out some interesting connections between tilings and such topics as computer science, continued fractions, probability theory, and mathematical logic.

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Plane Tilings

Thursday, April 19, 3:30–4:30 p.m.
Hoyt Auditorium