

## 数論セミナー

日時: 2024年5月16日(木) 16:40-

場所: D814

講演者: Emily R. Korfanty (University of Alberta, Canada)

講演題目: Circles in diffraction

アブストラクト:

In powder diffraction experiments, samples are irradiated with X-rays, producing rotationally invariant diffraction patterns with bright circles. Mathematically, we model diffraction as the Fourier transform of a measure associated with a tiling, called the autocorrelation. Many tilings, such as the pinwheel tiling, have rotationally invariant diffraction; however, little else is known about the diffraction of these tilings. Motivated by this, we derive a formula for the diffraction measure of a circle in terms of the autocorrelation measure. This is joint work with Nicolae Strungaru.

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