



Seminar Title

“Unusual Normal Tilings.”

Speaker: Prof. Dirk Frettlöh (Universität Bielefeld).



Date/Time: Monday November 15, 2021

4:00 PM - 5:00 PM

Abstract

R. Nandakumar asked whether there is a tiling of the plane by pairwise incongruent triangles of equal area and equal perimeter. Recently a negative answer was given by Kupavskii, Pach and Tardos. Still one may ask for weaker versions of the problem, or for the analogue of this problem for quadrangles, pentagons, or hexagons. The first part of this talk presents an overview of the recent results around this topic. The hexagon case leads to this question: in a normal tiling of the plane by convex hexagons and convex heptagons, how many heptagons can occur? We answer this question in the second part of the talk.

Part 1 is joint work with Christian Richter, part 2 is joint work with Alexey Glazyrin and Zsolt Langi.