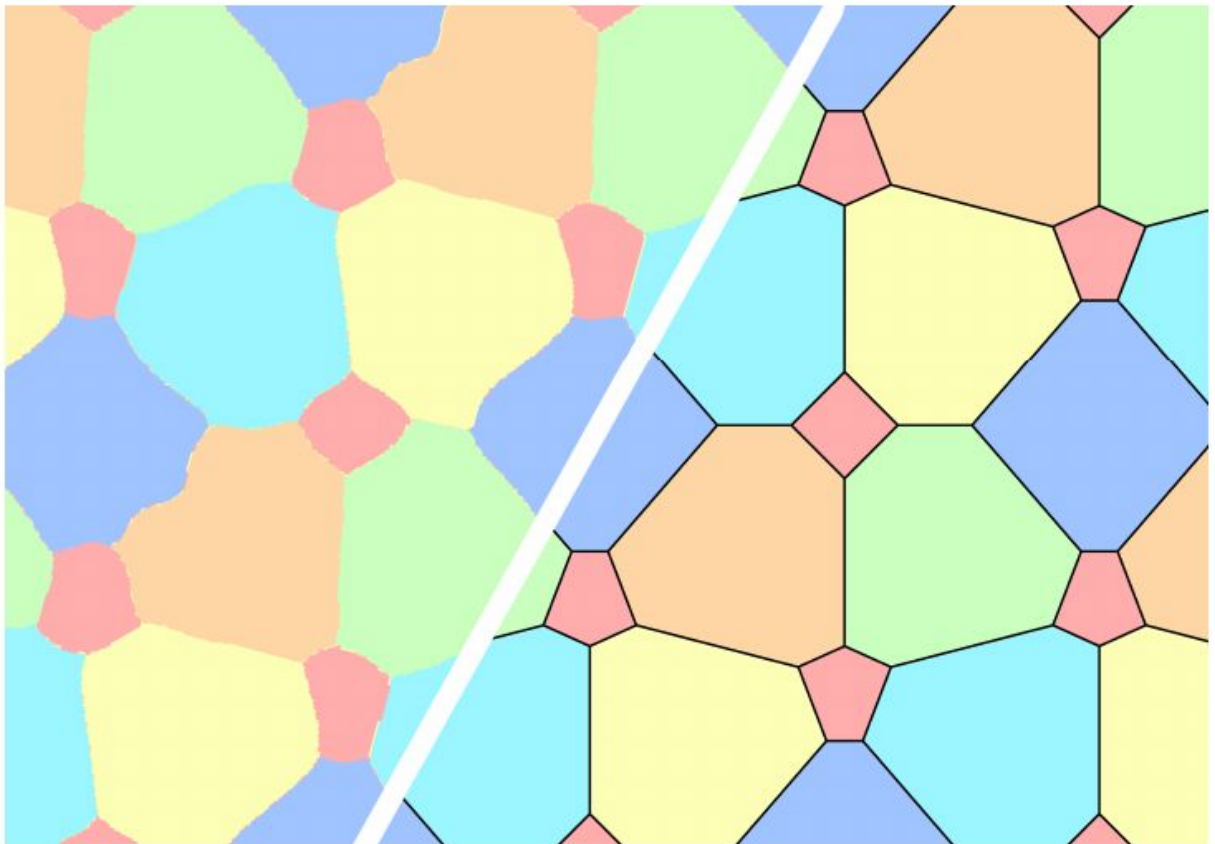


# Euclidean Ramsey theory

Euclidean Ramsey theory is a bridge between Euclidean geometry and Ramsey theory. Its central 'metaquestion' is as follows: if the points of the  $n$ -dimensional Euclidean space are colored using a given palette, which monochromatic configurations are unavoidable? The most typical example is Nelson's problem, which asks for the minimum number of colors needed to color the points of the plane such that no two points at distance 1 receive the same color. This seminar covers most of the central results in the field, following the original research papers (both classical and modern ones).



Source: Munding, Zimmer, Kiem, Spiegel, Pokutta

**Lecturer:** Dr. Arsenii Sagdeev

**Prerequisites:** LA1, Analysis 1

Organizational meeting: Wednesday, 30th July, 13:15-13:45, SR 2.58  
The 1st class is: Wednesday, 29th October, 15:45-17:15, SR -1.008