

STUDENT COLLOQUIUM at Chebyshev Laboratory

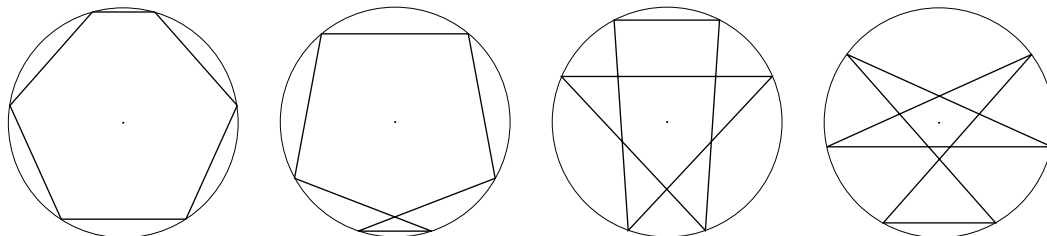
Thursday, October 29, 17:15,
Zoom Channel 675-315-555

Polygon Spaces and Oriented Area

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Suppose one has a closed string with a number of labelled beads, a *necklace*. Some of the beads are fixed and some can slide freely (although the beads never pass through one another). A *configuration of the necklace* is an arrangement of the necklace in the plane in such a way that the string is strained between every two consecutive beads. All configurations (up to rotations and translations) of a given necklace form *the configuration space of the necklace*. These spaces include configuration spaces of flexible polygons and some other natural polygon spaces.

The talk is aimed at discussing behaviour of the oriented area function on configuration spaces of necklaces. Firstly, I will discuss regularity properties of configuration spaces. After this I will describe critical points of oriented area and present a formula to compute their Morse indices.



Everybody is welcome!