Real plane sextic curves with smooth real part

Ilia Itenberg*[1]

[1]IMJ-PRG – Sorbonne Université – France

Abstract

The talk is devoted to the curves of degree 6 in the real projective plane.
We show that the equisingular deformation type of a simple real plane sextic curve with smooth real part is determined by its real homological type, that is, the polarization, exceptional divisors, and real structure recorded in the homology of the covering K3-surface. We will also present an Arnold-Gudkov-Rokhlin type congruence for real algebraic curves/surfaces with certain singularities and a result concerning contraction of ovals of a singular real plane sextic with smooth real part. (This is a joint work with Alex Degtyarev.)

*Speaker