

Billiards, Arithmetic and Hodge Theory

vendredi 20 septembre 2024 14:00 (1 heure)

What are the slopes of periodic billiard paths in a regular polygon? We will connect this question and others to:

- cusps of thin groups,
- curves on Hilbert modular varieties,
- heights from Jacobians with real multiplication, and
- a spectral gap for the Galois orbits of triangles.

Along the way we will encounter issues of chaos and decidability, first appearing in polygons with 7 and 12 sides.

Orateur: MCMULLEN, Curtis (Harvard University)