# Seminarium geometrów

Poniedziałek, 13.01.2025, 14:15 WS

Macarena Arenas (University of Cambridge)

## Taut smoothings and shortest geodesics

Abstract: In this talk we will discuss the connection between combinatorial properties of minimally self-intersecting curves on a surface $S$ and the geometric behaviour of geodesics on $S$ when $S$ is endowed with a Riemannian metric. In particular, we will explain the interplay between a smoothing, which is a type of surgery on a curve that resolves a self-intersection, and $k$-systoles, which are shortest geodesics having at least $k$ self-intersections, and we will present some results that partially elucidate this interplay.

*streaming via ZOOM:*

Meeting ID: 967 6507 7409

Meeting password: "GS" (two letters) followed by the Euler characteristic of the closed orientable surface of genus 89.