



Number Theory Seminar

Windings of closed geodesics

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Abstract

In his 2006 ICM lecture, Ghys made the following observation. The winding of a closed geodesic around the cusp of the modular surface can be computed using a function from the theory of modular forms: the Rademacher function. In joint work with Flemming von Essen, we studied how and when generalizations of the Rademacher function also encode the winding for closed geodesics around the cusps of hyperbolic surfaces. For certain families of surfaces, we use a Selberg trace formula argument to obtain precise statistical results on these winding numbers.

Date: February 28, 2022 (Monday)

Time: 8:00 - 9:00pm (Hong Kong Time)

Venue: ZOOM: <https://hku.zoom.us/j/>

Meeting ID: 232 576 6007

All are welcome