

# Ergodic invariant measures on the space of geodesic currents

Gabriele Mondello<sup>1</sup>, Viveka Erlandsson<sup>2</sup>

<sup>1</sup> “Sapienza” Università di Roma

<sup>2</sup> University of Bristol

Asymptotics of many counting problems on a compact oriented hyperbolic surface  $S$  can be encoded into a locally finite measure  $m$  on the space  $\mathcal{C}(S)$  of geodesic currents on  $S$ , which is invariant under the action of the mapping class group  $\text{MCG}(S)$  of  $S$ . In many cases such asymptotics is polynomial of degree  $d$ , and then the measure  $m$  will be  $d$ -homogeneous.

The aim of this talk is to illustrate a result of classification of locally finite,  $\text{MCG}(S)$ -invariant ergodic measures on  $\mathcal{C}(S)$  and of locally finite,  $\text{MCG}(S)$ -invariant,  $d$ -homogeneous, ergodic measures. Such result heavily relies on the classification of ergodic  $\text{MCG}(S)$ -invariant measures on the space  $\mathcal{ML}(S)$  of measured laminations on  $S$  obtained by Lindenstrauss-Mirzakhani (and almost completely by Hamenstädt).

This is joint work [1] with Viveka Erlandsson.

## References

- [1] ERLANDSSON V. AND MONDELLO G., *Ergodic invariant measures on the space of geodesic currents*, preprint, <https://arxiv.org/abs/1807.02144>.