

## **Anne Bennett Prize: citation for Viveka Erlandsson**

### Short citation:

Dr Viveka Erlandsson of the University of Bristol is awarded an Anne Bennett Prize for her outstanding achievements in geometry and topology and her inspirational active role in promoting women mathematicians.

### Long citation:

Dr Viveka Erlandsson of the University of Bristol is awarded an Anne Bennett Prize for her outstanding achievements in geometry and topology and her inspirational active role in promoting women mathematicians. Erlandsson is an internationally leading mathematician, whose research focuses on low dimensional geometry and topology.

Central to Erlandsson's work are extensions of the classical problem of counting closed geodesics on surfaces. In a series of papers, alone and in collaboration with Souto and Parlier, Erlandsson pushed Maryam Mirzakhani's celebrated result on counting simple closed curves on hyperbolic surfaces in various directions, ingeniously developing a general framework through which these counting problems can be simultaneously proved at once, and recently giving a proof of the Mirzakhani general curve counting theorem from an equidistribution result for measures on the space of geodesics currents. The use of geodesic currents is a distinctively novel method to prove these spectacular results; other breakthroughs have included measure classification and rigidity results in dynamics and geometry.

Dr Erlandsson receives an impressive number of invitations to speak at international scientific events spanning a wide range of mathematical communities. Before the pandemic, she travelled across Europe, North America and Asia, delivering more than twenty talks in 2018 alone. As a result, Erlandsson is a visible role model for younger generations, especially of female mathematicians, in the UK and internationally. She has also given talks on many occasions specifically designed to encourage female students, including the 'Women in Mathematics: opportunity for the Future' undergraduate event hosted in Bristol.

Erlandsson is actively committed to the promotion of women in mathematics through outreach activities in schools, organisation of events such as Women Lunches and Women in Mathematics Colloquia, and in her service to the European Women in Mathematics Association. Through her mentoring role, she has been very successful in attracting and supporting young female mathematicians: in the past 5 years she has supervised more than 10 female undergraduate students and postdocs, through year-long projects and summer LMS bursaries.