SCMS Seminar

PAIR CORRELATIONS FOR LENGTH SPECTRA ON NEGATIVELY CURVED MANIFOLDS

Speaker: Professor Richard Sharp

University of Warwick

Time: 16:00 p.m.-17:00 p.m., Friday, July 22, 2016
Venue: Room 2201, East Guanghua Tower (Main), Fudan University

Abstract: Naturally associated to a (compact) negatively curved Riemannian manifold is its length spectrum, i.e. the set of lengths of closed geodesics. This has been the subject considerable study using techniques from both spectral theory (in the case of constant curvature) and ergodic theory. We will discuss "pair correlations" within this spectrum: asymptotics for pairs of closed geodesics, the difference of whose length lies in some (possibly shrinking) interval. In our approach, the closed geodesics are counted according to a discrete length which, in certain cases, can be chosen to be the word length of the corresponding conjugacy class in the fundamental group. (This is joint work with Mark Pollicott.)

Shanghai Center for Mathematical Sciences
22F East Guanghua Tower, No.220 Handan Road, Shanghai, China
Tel: 55665643 Fax: 65642190 Postcode: 200433 Email: scms@fudan.edu.cn