



## MATHEMATICS SEMINARS 2016

Wednesday, 17<sup>th</sup> August, 14:30–15:30

## Ian Melbourne

(University of Warwick)

## "Martingale approximation for parametrised dynamical systems"

**Abstract:** In joint work with Alexey Korepanov and Zemer Kosloff, we prove statistical limit laws for sequences of the type  $\sum_{j=0}^{n-1} v_n \circ T_n^j$  where  $T_n$  is a family of nonuniformly hyperbolic transformations.

The key ingredient is a new martingale-coboundary decomposition for nonuniformly hyperbolic transformations which is useful in the case when the family  $T_n$  is replaced by a fixed transformation T, but which is particularly useful in the case when  $T_n$  varies with n.

VENUE: Luigi Stasi Seminar Room (ICTP Leonardo da Vinci Building, first floor)