NON TRIVIAL LIMIT DISTRIBUTIONS FOR SYSTEMS WITH HOLES

DALIA TERHESIU (EXETER)

Abstract: Recent work by M. Demers and B. Fernandez shows that the push-forward measure of open interval maps with indifferent fixed points at the origin converges to the point mass supported at the origin; in this context, an 'open' interval intermittent map is a map with a 'non-small' hole (roughly, a cylinder) that does not contain any neighborhood of the origin. In work in progress, restricting the study to piecewise linear maps with indifferent fixed points, we obtain a non trivial limit distribution under a different normalization of the push-forward transfer operator (and of some type of average). It is seems very likely that that the non-trivial limit can be used in the study of statistical properties of the open system. The topic of the talk develops on a question of R. Zweimueller.