

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
UNIVERSITY OF SOUTHERN DENMARK, ODENSE

Mathematics seminar

Vadim Alekseev
TU Dresden

Sofic boundaries of groups and coarse geometry of sofic approximations

Thursday 15 September 2016, 14:15-15:15
IMADA seminar room

Abstract

Sofic groups generalise both residually finite and amenable groups, and the concept is central to many important results and conjectures in measured group theory. In the recent work with Martin Finn-Sell, we introduce a topological notion of a sofic boundary attached to a given sofic approximation of a finitely generated group and use it to prove that coarse properties of the approximation (property A, asymptotic coarse embeddability into Hilbert space, geometric property (T)) imply corresponding analytic properties of the group (amenability, a-T-menability and property (T)), thus generalising ideas and results present in the literature for residually finite groups and their box spaces. Moreover, we generalise coarse rigidity results for box spaces due to Kajal Das, proving that coarsely equivalent sofic approximations of two groups give rise to a uniform measure equivalence between those groups.

Host: David Kyed