Mathematics, Statistics, and Computer Science **@ UIC**

Logic Seminar

Bratteli diagrams: dynamics, structure, measures

Sergei Bezuglyi (University of Iowa)

Abstract: The talk is devoted to Bratteli diagrams, the object that is widely used for constructions of transformation models in various dynamics. A class of graduated infinite graphs, later called Bratteli diagrams, was originally introduced by O. Bratteli for the classification of AF C*-algebras. During the last two decades, Bratteli diagrams turned out to be a very powerful and productive tool for the study of dynamical systems in ergodic theory, Cantor and Borel dynamics. We will focus on Cantor dynamical systems and show that a large part of results proved in the context of Cantor minimal dynamical systems remains true for a much wider class of aperiodic homeomorphisms of a Cantor set. Our main results are about invariant measures and their relations with the structure of a Bratteli diagram. All necessary definitions will be given in the talk.

Tuesday, October 27 at 4:00 PM in SEO 427