Kempner Colloquium

C^*-ALGEBRAS ASSOCIATED TO TOPOLOGICAL k-GRAPHS AND EXEL-LARSEN SYSTEMS

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(Joint work with Cynthia Farthing and Nura Patani) Generalizing the construction of a topological graph from a singly generated dynamical system, Yeend describes a topological k-graph Λ constructed from the data of a locally compact Hausdorff space Ω and family of local homeomorphisms that pairwise commute where the composition is defined. When these maps are everywhere-defined, one may construct an Exel-Larsen system $(C_0(\Omega), N^k, \alpha, L)$. In this talk, I will describe these constructions and show that the product systems X^Λ, X^{Lar} associated to the topological k-graph and Exel-Larsen system, respectively, are isomorphic. It follows that the Cuntz-Pimsner algebras $\mathcal{O}_{X^\Lambda}$ and $\mathcal{O}_{X^{Lar}}$ are isomorphic.

This talk will not assume any prior knowledge of C^*-algebras, topological k-graphs, or Exel-Larsen systems. Undergraduates and graduate students are encouraged to attend.

Monday April 9, 2012
4:00 p.m.
MATH 350