Product systems and topological higher-rank graphs

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008 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

In 2006, Yeend introduced the notion of a topological higher-rank graph, generalising both Katsura's topological graphs and Kumjian and Pask's k-graphs. Yeend associated to each topological higher-rank graph Λ a groupoid $\mathcal{G}_\Lambda$ and hence a C^*-algebra $C^*(\Lambda)$. However, except under additional hypotheses, the obstructions to proving versions of the standard uniqueness theorems for $C^*(\Lambda)$ using groupoid technology have proven substantial.

In this talk we discuss how product systems of Hilbert bimodules and the notion of co-universal properties can be used to realise Yeend's algebras and establish the missing uniqueness theorems.

This talk should be accessible to graduate students.