DILIAN YANG, University of Windsor

Maximal abelian subalgebras in higher rank graph C-algebras*

Higher rank graphs are a natural generalization of directed graphs. The graph C*-algebra of a higher rank graph is the universal C*-algebra generated by the partial isometries associated to paths and projections associated to vertices, which satisfy the Cuntz-Krieger relations. It turns out that the C*-subalgebra, called the diagonal subaglebra, generated by those projections is abelian, and that it is a maximal abelian subalgebra if and only if the ambient graph is aperiodic. In this talk, we will report some recent results on a natural candidate corresponding to the diagonal subalgebra for a periodic higher rank graph.