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Title: Operator Algebraic analysis of RAAGs: QD + tracial stability

Abstract: In this talk, we discuss some results and open questions regarding operator algebraic considerations of right-angled Artin groups (RAAGs). In particular, we show that the full C*-algebra of any RAAG is quasidiagonal (QD). This points to questions on the trace space of such algebras. We ask if all amenable traces on $C^*(A_\Gamma, \mathbb{Z})$ are locally finite dimensional. This question can be resolved by establishing lifting results for unitary representations of RAAGs. Thus, we consider the tracial-stability of RAAGs in the sense of Hadwin-Shulman. Such results have further applications — e.g. we obtain a selective version of Lin's theorem for nearly commuting normal elements (in the sense of Hilbert-Schmidt norm). We introduce a class of graphs for which tracial stability of the corresponding RAAG holds. We will also discuss graphs for which tracial stability is open.