Algebra/Topology Seminar

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Graphical Properties of Bestvina–Brady Groups

Thursday, November 14, 2024
3:00 p.m. in BB-B012

Abstract. Given a finite simplicial graph, the associated right-angled Artin group (RAAG) is generated by the vertex set of the graph, and two generators commute if they are connected by an edge. RAAGs have many graphical properties. For example, two RAAGs are isomorphic if and only if their defining graphs are isomorphic. Bestvina–Brady groups (BBGs) are exotic subgroups of RAAGs, and some algebraic properties of BBGs are also graphical. For instance, a BBG is finitely generated if and only if the defining graph is connected. In this talk, I will discuss how to identify the Dehn functions and splittings of BBGs from their defining graphs.