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Jordan Bounds*, boundsj@bgsu.edu, and **Xiangdong Xie**. *On the quasi-isometric rigidity of a class of right-angled Coxeter groups.*

Given a finite simplicial graph Γ with vertex set $V(\Gamma)$ and edge set $E(\Gamma)$, there is an associated right-angled Coxeter group (RACG) W_Γ given by the presentation

$$W_\Gamma = \langle v \in V(\Gamma) \mid v^2 = 1 \text{ for all } v \in V(\Gamma); v_1 v_2 = v_2 v_1 \text{ if and only if } (v_1, v_2) \in E(\Gamma) \rangle.$$

While recent results have furthered the understanding of the large scale geometry of RACGs, the quasi-isometric classification of these groups is still wide open. In this talk we establish quasi-isometric rigidity for the class of RACGs with defining graphs joins of finite generalized thick m -gons where $m \geq 3$. In particular, we show that the corresponding right-angled Coxeter groups for this particular class are quasi-isometric if and only if their defining are isomorphic. (Received September 14, 2018)