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Tim Susse* (tsusse@simons-rock.edu). *Random right-angled Coxeter groups: Morse subgroups and boundaries.*

Given any simplicial graph $\Gamma = (V, E)$, we can define the right-angled Coxeter group corresponding that graph, W_Γ , generated by reflections corresponding to the vertices of Γ , with commutation relations determined by the edges.

In this talk we will investigate the Morse boundaries of random right-angled Coxeter groups in the Erdős—Rényi model. In particular we will provide thresholds for the right-angled Coxeter groups to contain special subgroups which are one-ended, Morse and hyperbolic. We will then apply these results to the question of which right-angled Coxeter groups are quasi-isometric to a right-angled Artin group. (Received January 21, 2022)