Speaker: **Hermiller, Susan**
Title: *Finiteness conditions for groups and monoids*
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Abstract: For a group with homotopical finiteness $\mathcal{F}_n$, there is a $K(\pi, 1)$ whose universal cover admits a group action with finite fundamental domain for the action on the n-skeleton. Squier's property of finite derivation type corresponds to an action up to dimension $n = 3$ in which the fundamental domain consists of "directed" cells. This property can then be applied to monoids as well as groups, and for groups it is equivalent to $\mathcal{F}_3$. In this talk I will discuss a homological analog of the definition of finite derivation type, an extension of this to higher dimensions, and connections to other finiteness conditions.