Discrete group actions on 3-manifolds and embeddable Cayley complexes

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Abstract: A classical result says that a finite group acts on the 2-sphere if and only if it admits a planar Cayley graph. In this talk we will see how this generalises to 3 dimensions, and to actions of infinite groups on non-compact 3-manifolds. This involves the Thurston-Perelman Geometrization Theorem.

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