

**ON RIGIDITY AND SYMMETRY: WHAT FINITE
GROUP ACTIONS TELL US ABOUT ASPHERICAL
MANIFOLDS**

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The theory of finite transformation groups studies the symmetries of objects like topological spaces or manifolds by means of finite group actions. Two fundamental questions are the following: Given a closed connected manifold, which finite groups can act effectively on it? Conversely, which topological properties should a closed manifold M have if we know a collection of finite groups actions on M ? The answer to these questions in full generality is currently out of reach. In this talk we will show how we can address and simplify these questions in the case where the manifold is aspherical.