MAURICIO BUSTAMANTE, Universidad Católica de Chile
Non-nullbordant aspherical manifolds

A manifold is called aspherical if its universal cover is contractible. Examples of aspherical manifolds are tori, hyperbolic manifolds and nonpositively curved manifolds. Hence the homotopy type of aspherical manifolds is encoded in their fundamental groups. It is therefore interesting to investigate the extent to which other topological properties of these manifolds are constrained by the fundamental group. In that regard, it was conjectured that closed aspherical manifolds whose fundamental group has nontrivial center were boundaries. In my talk I will show how using *hyperbolization* – a process to turn a triangulated manifold into an aspherical manifold– one can disprove this conjecture.