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Bena Tshishiku* (bena_tshishiku@brown.edu) and **Mauricio Bustamante**. *Symmetries of exotic negatively curved manifolds.*

Let N be a smooth manifold that is homeomorphic but not diffeomorphic to a hyperbolic manifold M . How much symmetry does N have? For example, does $\text{Isom}(M)$ act on N by diffeomorphisms? Farrell-Jones showed that in general the answer is “No”; however, they do not rule out that the orientation-preserving subgroup of $\text{Isom}(M)$ acts on N . In this talk, we will discuss this problem and its relation to Nielsen realization. The main result is a construction of examples of N such that $\text{Isom}(M)$ does act on N , as well as examples where the largest subgroup of $\text{Isom}(M)$ that acts on N has arbitrarily large index. This is joint work with Mauricio Bustamante. (Received January 27, 2020)