

1152-52-400

Theodore Weisman* (weisman@math.utexas.edu). *Group actions on boundaries of convex divisible domains.*

A convex projective structure on a compact manifold can be understood by studying the holonomy representation of the fundamental group Γ into $\mathrm{PSL}(n, \mathbb{R})$. When Γ is a word-hyperbolic group, the dynamics of the action of Γ on its ideal boundary can be used to determine when such a representation actually is the holonomy of some compact convex projective manifold. We'll discuss this result by considering group actions on strictly convex subsets of projective space. We'll also explain a generalization that covers cases where Γ is not a word-hyperbolic group. (Received September 09, 2019)