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Hitchin components for fundamental groups of 2-orbifolds

Let Y be a compact connected 2-orbifold of negative Euler characteristic and let π be its orbifold fundamental group. For $n > 1$, we denote by $\mathcal{R}(\pi, n)$ the space of representations of π into $\mathbf{PGL}(n, \mathbb{R})$. The purpose of the talk is to show that $\mathcal{R}(\pi, n)$ possesses connected components homeomorphic to an open ball whose dimension we compute explicitly (for $n = 2$ and 3, we find again formulae due to Thurston and to Choi and Goldman, respectively). We then give applications of the result to the study of rigidity properties of hyperbolic Coxeter groups. This is joint work with Daniele Alessandrini and Gye-Seon Lee (University of Heidelberg).