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Philip C Huling* (hulingpc@slu.edu), 314 N 49th St, Belleville, IL 62226. *Rigidity of Hyperbolic Orbifolds.*

We define a hyperbolic n -orbifold to be the quotient of hyperbolic n -space, \mathbb{H}^n , by a discrete subgroup, Γ , of $\text{Isom}(\mathbb{H}^n)$. If Γ is cofinite in $\text{Isom}(\mathbb{H}^3)$, then the size of its deformation space (up to conjugation) is well known. However, we may view Γ as being a subset of $\text{Isom}(\mathbb{H}^4)$ to investigate how this inclusion into a higher dimension allows for more deformations in the group. We find the dimension of the deformation space of a large class of cofinite Coxeter groups and then develop tools to analyze the deformation space of groups commensurable with them. Specifically, we are able to describe the deformation spaces of Bianchi groups which have a finite index Coxeter subgroup. (Received September 14, 2009)