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**Continuity of critical exponent of cocompact groups
under Gromov-Hausdorff convergence**

Abstract

We will show that the critical exponent of groups acting on packed, Gromov-hyperbolic metric spaces of non-positive curvature with compact quotient of bounded diameter is continuous under Gromov-Hausdorff convergence. The result is based on careful estimates of the Ahlfors regularity of the boundary at infinity and on a quantified Tits alternative for such groups.