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Ian Biringer* (biringer@math.uchicago.edu), 5734 S University Ave, Chicago, IL 60637, and
Juan Souto. *Sequences of Unfaithful Representations into $PSL(2, C)$.*

If Γ is a finitely generated group, then every representation $\rho : \Gamma \rightarrow PSL(2, C)$ with discrete and torsion-free image gives a hyperbolic 3-manifold M_ρ , the quotient of hyperbolic 3-space by the image of ρ . I will present some new results linking the pointwise convergence of a sequence of such representations with Gromov-Hausdorff convergence of the corresponding quotient manifolds. A detailed analysis already exists for sequences of faithful representations; I will give an example that illustrates the failure of these theorems in the unfaithful setting, and offer some useful replacements. Joint work with Juan Souto. (Received March 03, 2009)