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Sam Aaron Ballas* (sballas@math.utexas.edu). *Convex Projective Deformations of the Figure-8 Knot Complement.*

Let M be the complement of the figure-8 knot complement. One consequence of Mostow rigidity is that, up to conjugation, there is a unique discrete faithful representation ρ_0 of $\pi_1(M)$ into $\mathrm{SO}(3,1)$. However, when we embed $\mathrm{SO}(3,1)$ into $\mathrm{PGL}(4,\mathbb{R})$ then it is sometimes possible to find families of conjugacy classes of representations into this larger group that pass through ρ_0 . In this talk we will exhibit such a family of representations for $\pi_1(M)$ and show how these representations correspond to interesting geometric structures on M . (Received February 09, 2013)