1039-57-24 **Jason Bustamante** and **Joel Foisy*** (`foisyjs@potsdam.edu`), Mathematics Department, SUNY Potsdam, 44 Pierrepont Ave., Potsdam, NY 13676, and **Kenji Kozai**, **Kevin Matthews** and **Trickey Kristen**. *Intrinsically linked graphs in* $\mathbb{R}P^3$. Preliminary report.

Flapan, Howards, Lawrence and Mellor showed that a graph is intrinsically linked in an arbitrary 3−manifold if and only if it is intrinsically linked in S^3. We study intrinsically linked graphs in $\mathbb{R}P^3$, using a stronger notion of intrinsically linked. For us, a 2-component link in $\mathbb{R}P^3$ is *splittable* if one component can be placed inside an embedded 3−ball, with the other component contained in the complement of the 3−ball. A graph is *intrinsically linked in* $\mathbb{R}P^3$ if it contains, in every embedding into $\mathbb{R}P^3$, at least one pair of disjoint cycles that do not form a splittable link. With this definition, any graph that has a projective planar embedding is not intrinsically linked. We are able to fully characterize minor-minimal intrinsically linked graphs in $\mathbb{R}P^3$ with connectivity $0, 1$ and 2. We also show that only one Petersen-family graph is intrinsically linked in $\mathbb{R}P^3$ and prove that K_7 minus any two edges is minor-minimal intrinsically linked in $\mathbb{R}P^3$. (Received February 14, 2008)