1114-57-230 **Danielle O'Donnol*** (odonnol@indiana.edu), Department of Mathematics (RH 229), Indiana University, 831 East 3rd St, Bloomington, IN 47405. *Intrinsic 3-linkedness is Not Preserved by Y-triangle moves.*

A graph, G, is *intrinsically knotted* if every embedding of G in $\mathbb{R}^3$ contains a nontrivial knot. A graph G is *intrinsically n-linked* if every embedding of G in $\mathbb{R}^3$ contains a non-split n-component link. A *$Y\nabla$ move* on an abstract graph is where a valance 3 vertex, v, together with its adjacent edges are deleted, and three edges are added, one between each pair of vertices that had been adjacent to v. The reverse move is called a *∇Y move*. The combined work of Motwani, Raghunathan, and Saran, and Robertson, Seymour, and Thomas shows that intrinsic 2-linkedness is preserved by both ∇Y and Y∇ moves. Once it was known that intrinsic linkedness is preserved by both ∇Y and Y∇ moves, the natural question arose, which other properties are preserved by both moves. In 2008, Flapan and Naimi showed that Y∇ moves do not preserve intrinsic knottedness. In this talk we will show that 3-linkedness is not preserved by Y∇ moves.

I will present some new constructions of intrinsically 3-linked graphs. Then using one of the new graphs we will see that intrinsic 3-linkedness is not preserved by Y∇ moves. (Received August 28, 2015)