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A. Satyanarayana* (asatya@stevens.edu), Dept. of Computer Science, Stevens Institute of Technology, Hoboken, NJ 07030, and **Uma Batchu**. *Some new results on non-planar delta-wye-delta graphs.*

A graph is delta-wye-delta if it can be reduced to an empty graph using a sequence of delta-wye-delta replacements. It is well-known that every planar graph is a delta-wye-delta graph. However, until recently very little was known about non-planar delta-wye-delta graphs.

In this talk we present several new results on non-planar delta-wye-delta graphs. In particular, we focus on the join $G + H$ of two graphs G and H . We establish the necessary and sufficient conditions for a $G + H$ graph to be delta-wye-delta for all nontrivial graphs G and H . Further, we characterize several classes of delta-wye-delta apex graphs $G + K_1$. (Received February 26, 2007)