

1098-57-170

Peter D Horn*, 215 Carnegie Building, Syracuse, NY 13244, and **Margaret I Doig**. *Homology cobordism of graph manifolds*. Preliminary report.

Livingston proved every 3-manifold is homology cobordant to an irreducible manifold. Meyer proved every 3-manifold is homology cobordant to a hyperbolic manifold. Recently Cochran-Tanner proved that not every 3-manifold is homology cobordant to a Seifert fibered space. We take up the question for the class of graph manifolds. Our first task is to compute the cohomology ring for an arbitrary graph manifold and investigate whether this can obstruct a given manifold from being homology cobordant to a graph manifold. We will discuss some initial progress and examples. (Received January 24, 2014)