1163-57-475 Hugh N Howards*, Math Department, Manchester Hall, Winston Salem, NC 27109, and Erica Flapan. Intrinsic Chirality of Graphs.

We examine joint results of Erica Flapan and Hugh Howards on the intrinsic chirality of graphs. The main result is that for every closed, connected, orientable, irreducible 3-manifold M, there is an integer n_M such that if γ is a graph with no involution and a 3-connected minor λ with genus $\lambda > n_M$ then every embedding of γ in M is chiral. By contrast, we also show that for every graph γ there are infinitely many closed, connected, orientable, irreducible 3-manifolds M such that some embedding of γ in M is pointwise fixed by an orientation reversing involution of M. (Received September 07, 2020)