1009-53-202 **David A Hoffman*** (hoffman@math.stanford.edu), Department of Mathematics, Stanford University, Stanford, CA 94305, and **Brian White** (white@math.stanford.edu), Department of Mathematics, Stanford University, Stanford, CA 94305. *Variational methods for the construction of properly embedded minimal surfaces with finite topology.*

Properly embedded minimal surfaces of finite topology in $\mathbf{R^3}$ (and in $\mathbf{R^3}$ modulo a screw motion) are usually proved to exist using the Weierstrass representation in one form or another. This requires solving a period problem and, separately, proving that the resulting surface is embedded. We present here a method of realizing important classes of examples as limits of unstable, compact, embedded minimal surfaces. One of the advantages of this method is that it gives existence and embeddedness at the same time. Also it can provides additional geometric information about the behavior of the limit examples. (Received August 16, 2005)