1054-53-25   **Jacob Bernstein***, Mathematics Department, Bldg. 380, Stanford, CA 94305. *Conformal and Asymptotic Properties of Embedded Genus-g Minimal Surfaces with One End.*

Using the tools developed by Colding and Minicozzi in their study of the structure of embedded minimal surfaces in $\mathbb{R}^3$, we investigate the conformal and asymptotic properties of complete, embedded minimal surfaces of finite genus and one end. Indeed, we show that any such surface is conformal to a once-punctured compact Riemann surface. This completes the classification of the conformal type of embedded finite topology minimal surfaces in $\mathbb{R}^3$. Moreover, we deduce that such surfaces are asymptotic to a helicoid – and so call them genus-g helicoids. (Received July 27, 2009)