1038-53-61 Casey Douglas* (cjd@rice.edu), Math Department – MS 136, Rice University, Houston, TX 77005. Perturbed Genus-One Scherk Surfaces. Preliminary report.

The singly periodic, genus one helicoid is conjectured to be the limit of a one parameter family of doubly periodic surfaces referred to as Perturbed Genus One Scherk Surfaces. In the interests of proving this conjecture, we show that such a family exists. (Received January 23, 2008)