1082-92-310 **Benjamin R. Liu*** (`brl5686@rit.edu`). *Curve fitting to sparse experimental data: Implications for the dynamics of cardiac electrophysiology models.*

Mathematical models and computer simulation have become widely used in the field of cardiac electrophysiology; however, experimental data used in the construction of these models is often sparse or incomplete, leading to mathematically problematic assumptions. Here we investigate the sensitivity of the Ten Tusscher-Panfilov (TP) human ventricular cell model to function definitions chosen by modelers, and present results illustrating the sensitivity of the TP model dynamics in both single-cell and tissue simulations. (Received July 10, 2012)