1050-58-12   **Eduardo Gonzalez*** (`eduardo@math.umb.edu`) and **Chris Woodward**. *Area-dependence in gauged Gromov-Witten theory.*

I will describe joint work with Chris Woodward, in which we study the variation of the moduli space of symplectic vortices on a fixed holomorphic curve with respect to the area form. For compact, convex varieties we define gauged Gromov-Witten invariants and prove a wall-crossing formula for them. As an application, we prove a vortex version of the *abelianization (or quantum Martin) conjecture* of Bertram, Ciocan-Fontanine, and Kim, which relates Gromov-Witten invariants of geometric invariant theory quotients by a group and its maximal torus, for vortices on non-trivial bundles. (Received January 01, 2009)