1031-53-101   **Eduardo Gonzalez*** (`eduardog@math.rutgers.edu`), 110 Frelinghuysen Rd, Piscataway, NJ 08854, and **Chris Woodward**. *Gauged Gromov-Witten invariants on surfaces with cylindrical ends.*

We study the moduli space of solutions to the vortex equations introduced by Gaio, Mundet i Riera and Salamon on surfaces with cylindrical ends. This moduli generalizes the moduli spaces of pseudoholomorphic curves and flat connections. We define invariants of Hamiltonian G-manifolds, which in turn yield an equivariant quantum cohomology theory extending the one defined by Givental. (Received August 06, 2007)

1