Purvi Gupta* (purvi.gupta@rutgers.edu) and Chloe U. Wawrzyniak. On the stability of holomorphic discs attached to an $n$-sphere in $\mathbb{C}^n$.

Following Bishop’s foundational work on the existence of attached holomorphic discs near elliptic complex points in $\mathbb{C}^2$, the existence and regularity of Levi-flat manifolds bounded by prescribed 2-spheres in $\mathbb{C}^2$ was extensively studied by Bedford, Bedford-Gaveau, Kenig-Webster, Huang-Krantz, and others. In higher dimensions, there are analogous local results due to Kenig-Webster and Huang for nondegenerate elliptic CR-singularities, but almost no global results. In this talk, we will discuss the stability (under small perturbations) of holomorphic discs attached to the unit sphere in $\mathbb{C} \times \mathbb{R}^{n-1}$ viewed as an $n$-sphere in $\mathbb{C}^n$. (Received January 29, 2019)