1145-32-2131   **Kate Brubaker*** (`kbrubak@purdue.edu`). *The homogeneous complex Monge-Ampère equation and uniform estimates for holomorphic maps into a complex manifold.* Preliminary report.

The study of the space of Kähler metrics on a compact Kähler manifold leads to a homogeneous complex Monge-Ampère equation. In 2002, Donaldson showed that the space of smooth solutions to this equation is open, when the domain is the product of the manifold with the unit disk in $\mathbb{C}$. His work employed a reformulation of the Monge-Ampère problem in terms of families of holomorphic disks in the manifold. We present a result about uniform estimates on holomorphic maps of the unit disk into a complex manifold, as a step towards apriori estimates on solutions to the equation. (Received September 24, 2018)