1086-53-1375   **Gueo Grantcharov*** (`grantchg@fiu.edu`) and **Misha Verbitsky**. *Calibrations in hyperkaehler geometry.*

We describe a family of calibrations arising naturally on a hyperkähler manifold M. These calibrations calibrate the holomorphic Lagrangian, holomorphic isotropic and holomorphic coisotropic subvarieties. When M is an HKT (hyperkähler with torsion) manifold with holonomy $SL(n, \mathbb{H})$, we construct another family of calibrations Φ_i, which calibrates holomorphic Lagrangian and holomorphic coisotropic subvarieties. The calibrations Φ_i are (generally speaking) not parallel with respect to any torsion-free connection on M. (Received September 21, 2012)