

Topics in Geometry and Topology (PMATH 965) - Symplectic Geometry

This course will be a basic introduction to symplectic geometry, beginning with the symplectic forms, and covering basic structure theorems (such as Darboux's), Kahler structures and complex manifolds, Hamiltonian mechanics and moment maps, and short units on more modern topics such as quantization and the Fukaya category. Prerequisite: PMATH 665 or similar background on manifolds. Some familiarity with Lie groups and Lie algebras (such as PMATH 763).