Quantum uncertainty and symplectic capacity BARBARA SANBORN, Antioch College — In geometric quantum mechanics, a quantum system is described as a Hamiltonian dynamical system, with a complex projective Hilbert space as its phase space. The symplectic geometry of the quantum phase space shows the Robertson-Schrödinger uncertainty relation as an example of the energy identity from the theory of $J$-holomorphic curves. The identity relates the minimal uncertainty product for two quantum observables to a symplectic capacity, suggesting interesting relationships between the concepts of information capacity and symplectic capacity.