Abstract: The study of fixed points of group actions is an important topic in geometry and topology. During this talk, we focus on fixed points of an action in the case where a manifold admits a symplectic structure and a circle action on the manifold preserves the symplectic structure. First, we discuss the classification of a symplectic circle action, when the number of fixed points is small. Then we discuss important theorems on fixed points of a symplectic circle action.