

Peter Heinzner: Actions of real forms of complex reductive groups.

In this talk we discuss actions of real forms of complex Lie groups on complex manifolds. Our main interest concerns quotients arising via symplectic or Kaehlerian reduction and its consequences for the complex geometry. We explained the methods and several examples of this theory which have quite different origin. For example, we give a new proof of Abels' theorem about a proper action of a real reductive group G on X , which states that X is a G -fiber bundle over G/K where K is a maximal compact subgroup of G .