Abstract

Speaker: Domingo Toledo (Utah U.)

Title: Geometry of Non-Classical Flag Domains

Abstract:

Flag domains form a class of homogeneous complex manifolds that includes the period domains of Hodge theory. Non-classical domains are those that do not fiber holomorphically over Hermitian symmetric spaces.

I will describe some of their geometry. A characteristic feature of these domains is the existence of many compact subvarieties. I will explain recent joint work with Phillip Griffiths and Colleen Robles on the geometry of the collection of these subvarieties, and its implications for quotients of these domains by discrete groups.