

May 14: Hadi Salmasian (University of Alberta), “On the structure and geometry of infinite-dimensional classical Lie groups.” FOLLOWED BY DINNER

Although structure theory and representations of finite-dimensional classical Lie groups/Lie algebras have been studied for about a hundred years, only recently have infinite-dimensional classical Lie groups/Lie algebras been investigated systematically. In this talk I begin by surveying recent progress on classification of simple locally finite Lie algebras, their Cartan and Borel subalgebras, and the geometry of their associated flag manifolds. Next I will focus on certain B -stable subvarieties of these flag manifolds which probably deserve to be called infinite-dimensional Schubert varieties. The talk will conclude with a result on finiteness of weight multiplicities of modules canonically associated to line bundles of these varieties.