Sophus Lie Days

March 14-15, 2013

Ivan Cherednik, UNC Chapel Hill

New Theory of q,t-Hypergeometric and q-Whittaker Functions

Lecture I: Thursday, March 14 at 4:00 PM in 532 Malott Hall **Lecture II:** Friday, March 15 at 3:30 PM in 406 Malott Hall

The lectures will be devoted to the new theory of global difference hypergeometric functions, one of the major applications of the double affine Hecke algebras and a breakthrough in the classical harmonic analysis on symmetric spaces. They were introduced in 1996, 150 years after Heine's definition, which remained unchallenged since then. The analytic theory of these functions and their q-Whittaker limits was completed only recently (the speaker and Jasper Stokman). If time allows, connections with Gromov-Witten invariants of flag varieties and the algebraic theory of affine flag varieties will be discussed.



Please join us for refreshments Thursday, March 14 at 3:30 PM in the Mathematics Department lounge (532 Malott Hall).