

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

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Thursday, January 24, 2:50-3:50 pm, Lake Hall 509

Lagrangian fibers of Gelfand-Cetlin systems

Abstract

Gelfand-Cetlin systems are completely integrable systems on partial flag varieties constructed by Guillemin and Sternberg. The completely integrable systems are useful to produce Lagrangian submanifolds in flag varieties which are essential ingredients for studying SYZ mirror symmetry and Floer theory. In this talk, I will talk about the peculiarities of the systems such as isotropic property and smoothness of fibers and explain how to describe Gelfand-Cetlin polytopes and Lagrangian fibers in terms of combinatorics on ladder diagrams.