FELIX KLEIN SEMINAR

Guest Speaker: Xin Jin
Northwestern University

Date: Thursday, April 20, 2017
Time: 2:00 PM
Location: 258 Hurley Hall

Lecture Title:
Holomorphic Lagrangian branes and perverse sheaves

Abstract

I will show that a holomorphic Lagrangian brane in the cotangent bundle of a complex analytic manifold X gives a perverse sheaf on X, under the Nadler-Zaslow correspondence. I will give examples for $X = \mathbb{A}^1$ stratified at a point, and will give the branes representing the big tilting sheaves on flag varieties. If time permits, I will also present a way to understand the Hecke category and braid relations using symplectomorphisms (not holomorphic) of the cotangent bundle of flag varieties, which further connects representation theory with symplectic topology.

Xin Jin - Northwestern University