Tuesday May 30

10:30 - 12:30 Tony Pantev

Title: Symplectic structures on moduli of Stokes data

Abstract:

In the first part I will explain an important extension of Hamiltonian and Quasi-Hamiltonian reduction which uses derivedgeometry in an essential way. This extension has a lot of built in flexibility and provides a universal construction of many known and geometry. The generalized reduction construction relies on the notion of a relative shifted symplectic structure along the stalks of a constructible family of derived stacks on a stratified space. I will introduce relative shifted symplectic forms and will describe a general pushforward construction, together with explicit techniques for computing such forms. In the second part I will explain an application of the general pushforward formalism to a universal construction of Poisson and symplectic structures on the derived moduli of irregular local systems and moduli of Stokes data on smooth varieties of arbitrary dimension.

This is a joint work with Dima Arinkin and Bertrand Toën.