Abstract

In their seminal paper, Pantev, Toen, Vaquie and Vezzosi introduced the notion of shifted symplectic structure on derived stacks. Later PTVV + Calaque further introduced the shifted Poisson structure. In this talk, I will present my recent work joint with Alexander Polishchuk. We prove that the moduli space of complexes of vector bundles (up to chain isomorphisms) on CY $d$-fold carries a $(1 - d)$-shifted Poisson structure. This generalizes various interesting Poisson structures in algebraic geometry and integrable systems. Finally, I will explain how to use our theorem to classify the symplectic leaves of elliptic deformation of Hilbert scheme of points on $P^2$. 

Date: March 14, 2017 (Tuesday)
Time: 4:00 – 5:00pm
Venue: Room 210, Run Run Shaw Bldg., HKU