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# Representation and Number Theory Seminar

## *On Hikita-Nakajima conjecture for some quiver varieties and Slodowy slices*

by

*Dr. Vasily Krylov*  
MIT

### Abstract

Symplectic duality predicts that symplectic singularities should come in pairs. For example, Nakajima quiver varieties are conjecturally dual to BFN Coulomb branches (of the corresponding quiver theories). Another family of potentially symplectically dual pairs was described recently in the works of Losev, Mason-Brown, and Matvieievskiy: they describe symplectically duals to Slodowy slices to nilpotent orbits. In this talk, we will discuss the Hikita-Nakajima conjecture that relates the geometry of symplectically dual varieties. We will restrict to the cases of certain quiver varieties and Slodowy slices and discuss the picture in these cases. Based on the joint work with Pavel Shlykov (arXiv:2202.09934) and the work in progress with Do Kien Hoang and Dmytro Matvieievskiy.

Date : 15 May 2023 (Monday)  
Time : 9:00am – 10:00am  
Zoom :  
<https://cuhk.zoom.us/j/98406698458?pwd=ejBFQXBtDU2bTNFZnZhaUINMHJUdz09>  
Meeting ID: 984 0669 8458  
Passcode: sesame

*All are Welcome*