

SEMINAR ON QUIVER VARIETIES

Fall 2026

Wednesday 3-3:50pm, MS 5147

Plan of talks

- (1) Introduction
- (2) Quiver representations: path algebras, representations, dimension vectors, examples
- (3) Moduli space of representations, stability, GIT construction
- (4) Framing and double quiver, Hamiltonian reduction
- (5) Nakajima quiver varieties: stability, smoothness, semi-simplification morphism
- (6) Quiver with one vertex and no arrows, Grassmannians
- (7) Jordan quiver and Hilbert scheme of points in the plane
- (8) Kac-Moody algebras and their representations
- (9) Borel-Moore homology, correspondences and convolution
- (10) Construction of representations

References

Alexander Kirillov Jr., Quiver Representations and Quiver Varieties, Graduate Studies in Mathematics 174, AMS, 2016.
Victor Ginzburg, Lectures on Nakajima's Quiver Varieties, arXiv:0905.0686.