## Algebra Seminar

Derived Equivalences from Compactifications

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**Abstract:** In this talk we will examine a new generalization of a wonderful construction of Drinfeld, producing a new class of kernels which often induce Fourier-Mukai functors which realize the derived equivalences from wall-crossings in Variations of Geometric Invariant Theory. This new class of functors are parameterized by the rational polyhedral in the group equivariant ample line bundles. This program is inspired by recent work of Ballard, Diemer, Favero (2017) and work of Ballard, Chidambaram, Favero, McFaddin, and myself (2019), these papers provide a new class of kernels for realizing the derived equivalence for many interesting birational transformations.

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