

## **Mathematics and CS Seminar**

## **BFN Springer theory**

## Joel Kamnitzer

University of Toronto

Host: Tamas Hausel

Given a representation of a reductive group, Braverman-Finkelberg-Nakajima have defined a remarkable Poisson variety called the Coulomb branch. Their construction of this space was motivated by considerations from supersymmetric gauge theories and symplectic duality. The coordinate ring of this Coulomb branch is defined as a kind of cohomological Hall algebra; thus it makes sense to develop a type of "Springer theory" to define modules over this algebra. In this talk, we will explain this BFN Springer theory and give many examples. In the toric case, we will see a beautiful combinatorics of polytopes. In the quiver case, we will see connections to the representations of quivers over power series rings.And in general, we will explore the relations between this Springer theory and quasimap spaces.

## Wednesday, January 23, 2019 02:00pm - 05:00pm

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.

www.ista.ac.at | Institute of Science and Technology Austria | Am Campus 1 | 3400 Klosterneuburg