



## Seminar/Talk

# Atoms and charge beyond type A

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Host: Tamas Hausel

Kostka-Foulkes polynomials are  $q$ -analogues of weight multiplicities for irreducible representations of semi-simple finite-dimensional complex Lie algebras. They appear in various contexts in representation theory; in particular they are affine Kazhdan-Lusztig polynomials and therefore have positive coefficients. In type A, that is, for the special linear Lie algebra, a positive combinatorial formula has been known since 1978. However, in general, the problem is still wide open. I will give a historical introduction to the problem of finding a positive combinatorial formula for Kostka-Foulkes polynomials beyond type A. Then I will present some joint results with Leonardo Patimo in this direction - in particular such a formula for type B<sub>2</sub>/C<sub>2</sub>.

**Thursday, June 20, 2024 01:00pm - 02:30pm**

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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