

Moment graphs combinatorics for semi-infinite flags

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Moment graphs techniques have been successfully applied to the study of the geometry of flag varieties and their Schubert varieties. As such, they provide a way of translating into combinatorics (of Bruhat graphs) some problems arising in the representation theory of finite-dimensional semisimple Lie algebras, which are known to be controlled by these varieties.

In the case of quantum groups at a root of unity and Lie algebras in positive characteristic, flag varieties have to be replaced by an affine variant: the semi-infinite flags. In this talk we discuss why a certain graph we discovered is expected to be the right substitute for Bruhat graphs in this setting.

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