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Semi-infinite combinatorics in representation theory. (English) Zbl 1425.17030


Summary: In this work we discuss some appearances of semi-infinite combinatorics in representation theory. We propose a semi-infinite moment graph theory and we motivate it by considering the (not yet rigorously defined) geometric side of the story. We show that it is possible to compute stalks of the local intersection cohomology of the semi-infinite flag variety, and hence of spaces of quasi maps, by performing an algorithm due to T. Braden and R. MacPherson [Math. Ann. 321, No. 3, 533–551 (2001; Zbl 1077.14522)] .

For the entire collection see [Zbl 1357.14004].

MSC:

17B65 Infinite-dimensional Lie (super)algebras
14M15 Grassmannians, Schubert varieties, flag manifolds
20C08 Hecke algebras and their representations

Keywords:

moment graphs; semi-infinite order; character formulae

Full Text: arXiv