FROM GEOMETRIC CRYSTALS TO CRYSTAL BASES

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Abstract

The goal of my talk is to construct crystal bases in irreducible G-modules by means of geometric crystals that have been introduced a few years ago in a joint work with David Kazhdan. Geometric crystals provide a family of piecewise-linear parametrizations of crystals bases and allow for defining such combinatorial structures as 'crystal multiplication' and 'central charge' on tensor products of crystal bases.