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Quasiharmonic polynomials for Coxeter groups and canonical elementary invariants

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Abstract

In my talk (based on *joint paper with Yurii Burman*) I will introduce a certain generalization of usual harmonic polynomials for each Coxeter group — the so-called quasiharmonic polynomials. These polynomials are useful for constructing deformations of finite-dimensional modules over rational Cherednik algebras.

Another surprising application is the construction of canonical elementary invariants for all Coxeter groups. In the case of the symmetric group they turn out to be certain 1-parameter deformations of the elementary symmetric functions.