

Geometry, Physics, and Representation Theory
Northeastern University

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Harish-Chandra bimodules for rational Cherednik algebras

Abstract.

Associated to any pair of algebras quantizing the same commutative, graded Poisson algebra we have a category of Harish-Chandra bimodules. These were introduced in the context of universal enveloping algebras and have been studied for W-algebras and hyperbolic enveloping algebras, among others. In this talk, I will introduce these concepts in the context of rational Cherednik algebras. I will sketch the classification of irreducible HC bimodules for Cherednik algebras associated to the symmetric group. If time permits, I will also sketch the classification of certain irreducible HC bimodules for any rational Cherednik algebra.