1163-20-879   **Vidya Venkateswaran*** (`vvenkat@idaccr.org`). *Quasi-polynomial representations of double affine Hecke algebras.*

In the 1990's, Cherednik introduced a Y-induced, cyclic representation of the double affine Hecke algebra on the space of polynomials, the so-called basic representation. In addition to its importance in the representation theory of DAHA, this representation plays an integral role in the theory of Macdonald polynomials.

In this talk, we present a generalization of this picture. We study a class of Y-induced cyclic representations of DAHA, and show that they admit explicit realizations on the space of quasi-polynomials. We establish several properties about these representations, which parallel the basic representation, and we define a new family of quasi-polynomials which generalize Macdonald polynomials. We will also discuss some connections to recent work on Weyl group multiple Dirichlet series and metaplectic Whittaker functions. This talk is based on joint works with Siddhartha Sahi and Jasper Stokman. (Received September 13, 2020)