

# SEMPARIS – Séminaires en région parisienne

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## Séminaire sur les Algèbres Enveloppantes et Théorie des Représentations

**Vendredi 24 Mai 2013, 11 :00**  
IM-JUSSIEU-PRG, 2017  
Domaines : math.RT

Titre : *DAHA-symmetrizers and affine Satake isomorphisms.*

Orateur : **Ivan Cherednik ( University of North Carolina )**

Résumé : *Almost every specialist in modern representation theory and related geometry faced the problem of dealing with the affine symmetrizer, the one defined for the affine Weyl group or its deformation in terms of the corresponding affine Hecke algebra. Its action in DAHA modules appeared a surprisingly deep theory. The classical  $p$ -adic spherical functions, the Hall polynomials, the Kac-Moody characters and the affine Demazure characters are among special cases of this new theory. The key results are the proportionality of the DAHA symmetrizer to the Satake map and the classification of the DAHA coinvariants of higher levels. The level-one case is directly related to the theory of  $q$ -analogs of Mehta-Macdonald integrals with many important aspects in the range from the strong Macdonald conjecture (Fishel, Grojnowski, Teleman) to the theory of global spherical functions, one of the main applications of DAHA so far.*

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