

# Queen's Algebraic Geometry — Seminar —

SPHERICAL HECKE ALGEBRAS OF  $GL_n$  OVER 2-DIMENSIONAL  
LOCAL FIELDS

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## Abstract

At the beginning of the talk, we will briefly review the classical Satake isomorphism, which plays an important role in the Langlands program. Then we will generalize the theory to the 2-dimensional local field case. More precisely, we will construct the spherical Hecke algebra of  $GL_n$  over a 2-dimensional local field, and try to define an analogue of the Satake isomorphism, using Fesenko's  $R((x))$ -valued measure. A connection to Kac-Moody groups will also be briefly discussed. This is a joint work with Henry Kim.

Monday, March 28, 2005  
2:30pm – 3:30pm  
422 Jeffery Hall