

The anti-involution on a derived Hecke algebra

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In the theory of complex smooth representations of p -adic groups, Hecke algebras come with a natural anti-involution which reflects taking duals. In natural characteristic, i.e. when one replaces the complex numbers by a field of characteristic p , the duality theory for smooth representations is better-behaved on the derived category. We will describe this duality intrinsically on the 'Hecke side' in terms of (a generalization of) the anti-involution on the derived Hecke algebra introduced by Ollivier and Schneider. The talk is based on joint work with Peter Schneider.

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