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**Pavel Etingof, Wee Liang Gan\*** (wlgan@math.mit.edu) and **Victor Ginzburg**. *Continuous Hecke algebras*.

Drinfeld introduced the family of degenerate affine (graded) Hecke algebras attached to any finite group  $G$  and its linear finite dimensional complex representation  $V$ . I will speak on the “continuous” generalization of these algebras, in which the group  $G$  is a reductive algebraic group, and  $V$  is its algebraic representation. We call this generalization continuous Hecke algebras. They include continuous generalizations of symplectic reflection algebras and rational Cherednik algebras. A motivation for studying continuous Hecke algebras comes from the fact that their representation theory (which is yet to be developed) unifies the representation theories of real reductive groups, Drinfeld-Lusztig degenerate affine Hecke algebras, and symplectic reflection algebras (in particular, rational Cherednik algebras). (Received February 15, 2006)