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**Yu Chen** and **Cathy Kriloff\***, Department of Mathematics, Idaho State University, 921 S. 8th Ave., Stop 8085, Pocatello, ID 83209-8085. *Unitary representations of icosahedral graded Hecke algebras*. Preliminary report.

Recent work of Barbasch and Ciubotaru has described spherical unitary representations for split classical and exceptional  $p$ -adic groups by reduction to their associated graded Hecke algebras. We describe the support of spherical unitary representations of the noncrystallographic graded Hecke algebra of type  $H_3$  and report briefly on progress in the dihedral type and type  $H_4$ . (Received February 04, 2008)