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Cathy Kriloff* (krilcath@isu.edu), Department of Mathematics, Idaho State University, 921 S. 8th Ave., Stop 8085, Pocatello, ID 83209-8085, and **Yu Chen**. *Unitary representations of the graded Hecke algebra of type H_3* . Preliminary report.

Barbasch and Ciubotaru have described unitary representations for (crystallographic) graded Hecke algebras of classical and exceptional types, motivated by an interest in spherical unitary representations of real Lie groups. We report on progress in our description and methods of understanding the support of unitary representations of the noncrystallographic graded Hecke algebra of type H_3 . Although this algebra is not associated to a Lie group, its representations are of interest as representation theory expands to algebras associated to complex reflection groups. (Received February 16, 2010)