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Drew Armstrong* (armstrong@math.miami.edu), University of Miami, Department of Mathematics, 1365 Memorial Drive, Ungar 529, Coral Gables, FL 33146. *Hyperplane arrangements and q,t -Catalan numbers*. Preliminary report.

We introduce a new hyperplane arrangement — called the Ish arrangement — which has the same characteristic polynomial as the Shi arrangement. Given a chamber of the Shi arrangement we let shi and ish denote the number of Shi and Ish hyperplanes, respectively, separating the chamber from the origin. We prove that the generating function for shi and ish is Haiman's q,t -Catalan number. (Received August 29, 2009)