1041-33-32 **Paul M Terwilliger*** (terwilli@math.wisc.edu), Math Department, University of Wisconsin, 480 Lincoln Drive, Madison, WI 53706, and **Tatsuro Ito**. *Tridiagonal pairs of q-Racah type.*

Our research concerns the tridiagonal pairs of linear transformations. These pairs come in a number of types depending on the form of the eigenvalues and dual eigenvalues. The most general type is called q-Racah. We classify up to isomorphism the tridiagonal pairs of q-Racah type. The main ingredients in our proof are a nonstandard Drinfel'd polynomial and a related module for the quantum affine $\mathfrak{sl}_2$ algebra. This is joint work with Tatsuro Ito. (Received July 16, 2008)