

1122-05-190

**Paul M Terwilliger\*** ([terwilli@math.wisc.edu](mailto:terwilli@math.wisc.edu)), U. Wisconsin Math Department, 480 Lincoln Drive, Madison, WI 53706. *Tridiagonal pairs of  $q$ -Racah type, the Bockting operator  $\psi$ , and  $L$ -operators for  $U_q(L(\mathfrak{sl}_2))$ .*

Tridiagonal pairs are used to describe the irreducible modules for the subconstituent algebra of a  $Q$ -polynomial distance-regular graph. Associated with any tridiagonal pair is a certain operator  $\psi$  due to Sarah Bockting-Conrad. We describe  $\psi$  for a tridiagonal pair of  $q$ -Racah type, in terms of a certain  $L$ -operator for the quantum loop algebra  $U_q(L(\mathfrak{sl}_2))$ . (Received August 13, 2016)