1077-33-9 **Eric Rains*** (`rains@caltech.edu`), Department of Mathematics, 1200 E California Blvd., 176 Sloan, MC 253-37, Pasadena, CA 91125. *Beyond q: Special functions on elliptic curves.*

An important thread in modern representation theory (and combinatorics) is that many important objects have so-called q-analogues, generalizations depending on a parameter q which reduce to more familiar objects when $q = 1$. For instance, the Schur functions (irreducible characters of the unitary group) have q, t-analogues, namely the famous Macdonald polynomials, and similarly the Koornwinder polynomials are six-parameter q-analogues of the characters of other classical groups. It turns out that many q-analogues extend further to *elliptic* analogues, in which q is replaced by a point on an elliptic curve. The Macdonald/Koornwinder polynomials are no exception; I'll describe a relatively elementary approach to those polynomials and how to modify the approach to obtain an elliptic analogue. (Received September 22, 2011)