1125-33-3076   **Constanze Liaw**, **Jessica S. Kelly** and **John M. Osborn*** (`john_osborn@baylor.edu`).

Moment Representations of Exceptional X_1 Orthogonal Polynomials.

We generalize the representations of X_1 exceptional orthogonal polynomials through determinants of matrices that have certain adjusted moments as entries. We start out directly from the Darboux transformation, allowing for a universal perspective, rather independent of the particular system (Jacobi or Type of Laguerre polynomials). We include three ways to compute these adjusted moments — via a recursion formula, a matrix system, and as a hypergeometric function???.

Throughout we relate to the various examples of X_1 exceptional orthogonal polynomials. We especially focus on the Jacobi and the Type III Laguerre case, as they seem to be less prevalent in literature.

We lastly include a preliminary discussion explaining that the higher co-dimension setting becomes more involved. (Received September 20, 2016)