1116-46-2235 Constanze Liaw (constanze\_liaw@baylor.edu), Department of Mathematics, Baylor University, One Bear Place #97328, Waco, TX 76798, and John M. Osborn\* (john\_osborn@baylor.edu), Department of Mathematics, Baylor University, One Bear Place #97328, Waco, TX 76798. Moment Representations of the Exceptional X<sub>1</sub>-Laguerre Orthogonal Polynomials.

Exceptional orthogonal Laguerre polynomials can be viewed as an extension of the classical Laguerre polynomials by excluding polynomials of certain order(s) from being eigenfunctions for the corresponding exceptional differential operator. We are interested in the (so-called) Type I X<sub>1</sub>-Laguerre polynomial sequence  $\{L_n^{\alpha}\}_{n=1}^{\infty}$ , deg  $p_n = n$  and  $\alpha > 0$ , where the constant polynomial is omitted.

We derive two representations for the polynomials in terms of moments by using determinants. The first representation in terms of the canonical moments is rather cumbersome. We introduce adjusted moments and find a second, more elegant formula. We deduce recursion formulas for both types of moments. The adjusted moments are also expressed via a generating function. (Received September 22, 2015)