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Generating relation for Laguerre type polynomial containing Mittag-Leffler function.

The generating relations of classical Laguerre polynomials contain exponential function. The principal object of this paper is to introduce two parameter Laguerre type polynomials. The authors found some results of the two parameter Laguerre type polynomials. The remarkable thing of this paper is that the generating relations of the Laguerre type polynomials involving the Mittag-Leffler and the Wright functions. The relationships between Laguerre type polynomials, Mittag-Leffler function, Wright function, Bessel function, Confluent hypergeometric functions, Beta function and Gamma function are also obtained in this paper. The interesting Integral representations of the two parameter Laguerre type polynomials discussed in this paper. (Received January 22, 2010)