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Properties of the Mittag-Leffler Function STEPHAN T. SPENCER, JOHN W. HANNEKEN, TRENTON R. ENSLEY, B.N. NARAHARI ACHAR, University of Memphis — The Mittag-Leffler function $E_{\alpha,\beta}(z)$, which is a generalization of the exponential function, arises frequently in the solutions of differential and integral equations of fractional order. In order to better understand the physical systems described by these equations it is important to understand the basic properties of the Mittag-Leffler function. This paper focuses on the Mittag-Leffler function $E_{\alpha,\alpha}(z)$, the location and distribution of its zeros, and its inverse denoted by $Ln_{\alpha,\alpha}(z)$.

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