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**Gestur Olafsson\*** (olafsson@math.lsu.edu), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803, and **Mark Davidson** and **Michael Aristidou**. *Differential Recursion Relations for Laguerre Functions on Symmetric Cones*.

Let  $\Omega$  be a symmetric cone and  $V$  the corresponding simple Euclidean Jordan algebra. We will discuss recent results on explicit second order differential operators which give a differential equation for the generalized Laguerre functions on  $\Omega$  as well as recursion relations generalizing the classical relations for the Laguerre functions on  $\mathbb{R}^+$ . (Received August 15, 2005)