1027-33-54   **Mark W Coffey*** (`mcoffey@mines.edu`), Department of Physics, Colorado School of Mines, Golden, CO 80401. *The theta-Laguerre calculus formulation of the Li/Keiper constants.*

The Riemann hypothesis is equivalent to the nonnegativity of a sequence of real constants λ_k, that are certain logarithmic derivatives of the Riemann xi function evaluated at unity. We re-express these constants using the theta-Laguerre calculus. By using integral representations, we reformulate the coefficients λ_k together with a closely related sequence a_j. We present a decomposition of the quantities a_j into superdominant and subdominant components and give an upper bound on the former and an asymptotic lower bound for the latter. Sufficient estimation of these quantities would lead to confirmation of the Riemann hypothesis. (Received February 09, 2007)