1067-39-501   **Michael Holm*** (`s-mholm3@math.unl.edu`), 2520 S. 37th St., Lincoln, NE 68506. *The Laplace Transform in Discrete Fractional Calculus.*

The Discrete Laplace Transform is the integer-special case of the general Laplace Transform developed in the theory of time scales. We develop properties of this transform in the fractional calculus setting, giving a precise treatment to domains of convergence along the way. Our goal is to apply the Laplace Transform Method to solve a general fractional initial value problem. (Received September 07, 2010)