1012-41-220 Corina D Constantinescu* (corina@science.oregonstate.edu), 354 Kidder Hall, Corvallis, OR 97331, and E. Thomann. A convolution argument. Preliminary report.

Looking at a classical problem in the theory of ruin, we encountered topics and settings developed in the renewal theory. In this note we are trying to investigate the use of Laplace transforms in deriving the asymptotic behavior of the probability of ruin in finite or infinite time. Since the integro-differential equation of the probability of ruin is a special case of a renewal type equation, the analysis of renewal equations is appropriate. Based on some renewal theory results introduced by Feller, we derive the aformentioned asymptotic behaviors by means of completely monotone functions and Laplace transforms only. (Received September 20, 2005)