

1099-91-12

Maria Pia Beccar Varela* (mpvarela@utep.edu), Department of Mathematical Sciences - UTEP, 500 W. University Ave., El Paso, TX 79968-0514. *Analysis of generic diversity data and financial data by using Levy models.*

In this work we analyze different sets of data: generic diversity estimated from the fossil record, financial data, and high frequency (tick) data. We begin by presenting some theoretical results on convolutions of exponential waiting times, as this simple model offers a straightforward starting point for analyzing origination and extinction data. The resulting distributions will be used for comparison with the data sets. We conclude that the Levy flights are appropriate for modeling the three different set of data. (Received November 04, 2013)