

Discrete Time Compound Geometric Process

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Abstract

In this talk we introduce a new discrete time stochastic process with geometric underlying distribution (DTGP). The process is a discrete version of the well-known geometric process (GP) introduced by Lam (2007). In order to analyze the DTGP, we propose the so called hypogeometric distribution, which is a sum of independent geometrically distributed variables with different parameters. Then, as one special case, we obtain the geometric process. In a similar way, in the case of modified geometric underlying distribution we introduce the compound discrete time geometric process. The talk is in collaboration with Stefanka Chukova and Silvana Paralloi.