

Moments of a Non-homogenous Bivariate Fragmentation Process Using Integral Equations Tools

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Abstract

In this paper we are interested in two-dimensions fragmentation process that describes the evolution of an object having a rectangular shape. We focus on the non-homogenous fragmentation process where we break a rectangle according to a distribution that depends on its dimensions. Via Integral equations tools, we compute the mean and the variance of the distribution of the total number of the sub-rectangles obtained at the end of the process.

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