

Non-homogenous bivariate fragmentation process: asymptotic distribution via contraction method

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Abstract

In this paper we investigate the size of a bi-dimensional fragmentation process. A rectangle of dimensions x and y is considered, it is split into four sub-rectangles with some probability that depends on x and y , we iterate until the stop of the process. The total number of the all the obtained rectangles at the end of the process satisfies some equality in distribution which is resolved , using some tools on integral equations, via the contraction method.

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