

An inequality for moments and its applications to the generalized allocation scheme

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Abstract

An inequality for conditional moments of centered random variables is proved. This inequality is applied to the generalized allocation scheme. For the generalized allocation scheme an exponential inequality is obtained. The exponential inequality is applied to prove (partial) analogues of the Law of the Iterated Logarithm and an analogue of Prokhorov's Law of Large Numbers.

Keywords

Conditional expectation, Generalized allocation scheme, Law of large numbers, Law of the iterated logarithm, Moments