Journal of Mathematical Sciences 1997 vol.84 N3, pages 1125-1127

A probabilistic inequality for sums of bounded symmetric independent random variables

Mushtari D.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

An inequality $\int_x^{x+2} P\{|\sum_{i=1}^n \xi_i| \geq t\}\, dt \leq \int_x^{x+2} P\{|\sum_{i=1}^n \varepsilon_i| \geq t\}\, dt$ is proved which describes an extremal property of a two-point distribution within the class of symmetric distributions with bounded support.