Erratum

Monotone Decrease of Characteristic Functions

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The hypotheses of the theorem in my paper(1) are incorrectly stated. I thank Mark Pinsky for pointing this out to me.

Let \( \rho \) denote the probability measure associated with the \( n \)-dimensional distribution function \( F(x) \); i.e., for any Borel set \( A \subseteq \mathbb{R}^n \), we define

\[
\rho(A) = \int_A dF(x)
\]

Then hypotheses (1a) and (1b) should read as follows:

\[
\rho \text{ is symmetric} \quad (1a)
\]

\[
\infty > \int (tx)^2 dF(x) > 0, \quad \text{all } t \in \mathbb{R}^n, \quad t \neq 0 \quad (1b)
\]

Hypothesis (1a) implies that the characteristic function \( f(t) = \int \exp(it \cdot x) dF(x) \), \( t \in \mathbb{R}^n \), is real-valued.(2) Also, in order to avoid any confusion, the last sentence in the theorem should read as follows: “Thus, in a suitable neighborhood of the origin, \( f \) is monotonically decreasing along rays starting at the origin.”

REFERENCES


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