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

$$\rho(A) = \int_A dF(x)$$

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

$$\rho \text{ is symmetric} \tag{1a}$$

$$\infty > \int (t \cdot x)^2 \, dF(x) > 0, \qquad \text{all } t \in R^n, \quad t \neq 0 \tag{1b}$$

Hypothesis (1a) implies that the characteristic function $f(t) = \int \exp(it \cdot x) \, dF(x)$, $t \in R^n$, 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

1. R. S. Ellis, *J. Stat. Phys.* **16**:117 (1977).
2. K. L. Chung, *A Course in Probability Theory* (Harcourt, Brace, and World, New York, 1968), p. 145.

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