

ERRATUM: *Collect. Math.* **51** (2000), 111–130

On the positive definiteness of $n \mapsto e^{pn^\alpha}$

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The proof of Theorem 2 in [1] contains two errors which, however, do not make the theorem false. Firstly, in (6) the factor 20 should have been $5/4$, so (6) should have read as follows:

$$\frac{5}{4}\alpha^2(\alpha - 1)(\log 2) \left[\left(\frac{3}{2}\right)^{\alpha-2} + 1 - 2\left(\frac{5}{4}\right)^{\alpha-2} \right] \geq 1,$$

which makes the condition harder to satisfy. Secondly, the sentence following (6) is nonsense. However, the factor [...] has a positive derivative (with respect to α) as soon as

$$\alpha > 2 + \frac{2 \log \frac{5}{4}}{\log \frac{3}{2}} = 2.52614\dots$$

Moreover, the corrected inequality (6) certainly holds for $\alpha \geq 4$, so the proof is saved.

References

1. T. M. Bisgaard, On the positive definiteness of $n \mapsto e^{pn^\alpha}$, *Collect. Math.* **51** (2000), 111–130.