Corrigendum for “a Stein conjecture for the circle”

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The displayed inequality between inequalities (32) and (33) in our paper [1] is incorrect since $Q_k P_{k,\ell}$ does not in general have integral zero. In order to rectify this we choose $\tilde{Q}_k$ and R_k (as we may), which also satisfy the conditions of Proposition 14, with R_k odd and such that $\tilde{Q}_k * R_k = Q_k$ for every k . Proceeding from inequality (30) with Q_k replaced by R_k , and taking the partition of unity $\{P_n\}$ to be comprised of even functions (as we may), the proof becomes correct. In particular, the functions $R_k P_{k,\ell}$ are all odd, and so have integral zero.

We would like to thank Sam Harrison for bringing this to our attention.

Reference

1. Bennett, J., Carbery, A., Soria, F., Vargas, A.: A Stein conjecture for the circle. Math. Ann. **336**, 671–695 (2006)

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