Corrigendum for "Nearly orthogonal vectors and small antipodal spherical codes"

August 28, 2026

The "only if" part (b) of Lemma 5 about complex isotropic measures is wrong. Any non-antipodal measure for $k = 1$ satisfies the condition of the lemma.

The mistake is at the top of page 11, where it is stated that $|\langle x, y\rangle| = |x||y|$ implies that $x = y$ or $x = -y$. While this is true for real vectors, it fails for complex vectors.

To correct the statement of Lemma 5(b), one should replace $\mu(x) + \mu(-x) = 1/k^2$ by $\mu\big(\{\omega x : |\omega| = 1\}\big) = 1/k^2$. Apart from the implication at the top of page 11, the proof remains unchanged.

We are thankful to Tomasz Kobos for bringing this error to out attention.