The Paulsen Problem Made Simple
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The Paulsen problem is a basic problem in operator theory that was resolved in a recent tour-de-force work of Kwok, Lau, Lee and Ramachandran. In particular, they showed that every \(\epsilon\)-nearly equal norm Parseval frame in \(d\) dimensions is within squared distance \(O(\epsilon d^{13/2})\) of an equal norm Parseval frame. We give a dramatically simpler proof based on the notion of radial isotropic position, and along the way show an improved bound of \(O(\epsilon d^2)\).

This is based on joint work with Linus Hamilton