

BRICKMAN'S CONJECTURE

Let P be a polynomial of degree n with $P(0) = 0$. Then, for any α between 0 and π there exists an open arc γ on the unit circle $|z| = 1$ of length $2\alpha/n$ so that $|\arg P(z)| < \alpha$ for each z on γ .

This would be sharp for $P(z) = z^n$ and is true for $\alpha = \pi/2$ (joint paper of Clunie, Ruscheweyh, and Salinas).