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Tariq M Qazi*, Department of Mathematics and Comp. Sc., Petersburg, VA 23806. *L^p inequality for entire functions of exponential type.*

Let f be a polynomial of degree n . It is well known that $\int_{-\pi}^{\pi} |f'(e^{i\theta})|^p d\theta \leq n^p \int_{-\pi}^{\pi} |f(e^{i\theta})|^p d\theta$. Let g be an entire function of exponential type τ such that $g \in L^p(\mathbb{R})$ where $p > 0$. As an extension of the above inequality for entire functions of exponential type τ , it is also well known that $\int_{-\infty}^{\infty} |g'(x)|^p dx \leq \tau^p \int_{-\infty}^{\infty} |g(x)|^p dx$. A polynomial f of degree n is called a self-reciprocal if it satisfies the condition $f(z) = z^n f(1/z)$. Lately, many papers have been written on these polynomials. If f is a self-reciprocal polynomial, then $g(z) := f(e^{iz})$ is an entire function of exponential type n such that $g(z) = e^{inz} g(-z)$. Govil [N. K. Govil, *L^p inequalities for entire functions of exponential type*, Math. Inequal. Appl. 6 (2003) 445-452] studied the class of entire functions g of exponential type satisfying the condition $g(z) = e^{i\tau z} g(-z)$. We will discuss *L^p* inequalities for self-reciprocal polynomials and entire functions of exponential type discussed by Govil.

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