

# ZEROS OF FEKETE POLYNOMIALS AND APPLICATIONS

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ABSTRACT: The study of the location of zeros of polynomials with coefficients constrained in different sets has a very rich history. Fekete polynomials are certain Littlewood type polynomials whose coefficients are the values of a quadratic Dirichlet character. These polynomials were considered by Fekete in an attempt to understand real zeros of Dirichlet  $L$ -functions in the critical strip. Since then, their zeros and value distribution have been extensively studied.

I will present some recent results concerning zeros of Fekete polynomials and discuss some applications. This is a joint work with O. Klurman and Y. Lamzouri.

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