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SKEW–CIRCULANT MATRIX AND CRITICAL POINTS OF POLYNOMIALS

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Abstract. In this paper, we first prove a relation between the critical points of the skew-circulant matrix and the eigenvalues of its principal matrix. Furthermore, we reprove the inequality about the zeros of a polynomial and its critical points by using the properties of skew-circulant matrix, which is to show that we can not only find the skew-circulant matrix, but also give more structure matrices to prove this inequality.

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