

Factoring Non-negative Operator Valued Trigonometric Polynomials in Two Variables

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June 2022

The use of Schur complement techniques is discussed as a method for deriving a sort of two variable Féjer-Riesz theorem; more specifically, in showing that a non-negative operator valued trigonometric polynomial in two variables of degree (d_1, d_2) is a finite sum of hermitian squares of at most $2d_2$ analytic polynomials of degrees at most $(d_1, 2d_2 - 1)$.