

Hermitian sums of squares

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Abstract

A survey of the role of sums of hermitian squares, and quotients of sums of hermitian squares in algebraic geometry and operator theory will be given. A characterization of all real algebraic subvarieties of the complex affine space, on which all positive polynomials are sums of hermitian squares, will be discussed. Based on recent work with Claus Scheiderer.

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