QUELQUES PROPRIÉTÉS EXTRÉMALES DES VALEURS SINGULIÈRES D'UN OPÉRATEUR COMPACT ET LEURS APPLICATIONS AUX ANALYSES FACTORIELLES D'UNE PROBABILITÉ OU D'UNE FONCTION ALÉATOIRE
I. QUELQUES PROPRIÉTÉS EXTRÉMALES DES VALEURS SINGULIÈRES D'UN OPÉRATEUR COMPACT

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Abstract: We give global criteria for the canonical reductions of an unnecessary self-adjoint operator on a complex separable Hilbert space. These criteria are obtained by an extension of the Poincaré separation theorem for the eigenvalues of a Hermitian matrix. We derive extremal properties of the singular values of a compact operator, thus generalizing known results in finite dimension (cf. [3], [10], [11]) and the recent results by Göhberg and Krejn [7]. Our goal is to find criteria for the factor analysis of a probability defined on a separable Hilbert space or of a real random function other than a finite or countable set of real random variables.

2000 AMS Mathematics Subject Classification: Primary: -; Secondary: -;

Key words and phrases: -

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