## THE FIELDS INSTITUTE

FOR RESEARCH IN MATHEMATICAL SCIENCES

ABSTRACTS 1.2

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The Ultimate Norm Estimate for the Sum of Two Matrices

It is often a complicated matter to estimate the the C\*-norm (the usual Hilbert-space operator-norm) of the sum of two complex matrices. Nevertheless, an ultimate answer (without hard computation) can be sought for the best bound of the norm of T=A+B where A and B are (non-commuting) normal matrices with known eigenvalues. Moreover, the main result can be extended to cover the case of the sum of two non-normal matrices. (This is a joint work with Chi-Kwong Li.)