



Thompson-type formulae

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Let X and Y be two $n \times n$ Hermitian matrices. In the article "Proof of a conjectured exponential formula" (Linear and Multilinear Algebra (19) 1986, 187-197) R. C. Thompson proved that there exist two $n \times n$ unitary matrices U and V such that
$$e^{iX}e^{iY} = e^{i(UXU^* + YBV^*)}$$
. In this note we consider extensions of this result to compact operators as well as to operators in an embeddable II_1 factor.

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