

Searching for identity à la Gelfand

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Strong algebraic conclusions can often be drawn by restricting the growth rate of powers of an operator (hence analytic conditions). We consider some growth conditions, imposed on a bounded linear operator T on a Banach space X , which force the operator T to be the identity operator I . Among the many results in this area, we discuss those of Gelfand, Ritt, and Grobler and Huijsmans.