23(7)

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摘要
关键词   norm   self-adjoint   bilinear inequality   Beta function

分类号   47A07

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Abstract In this paper, the expression of the norm of a self-adjoint integral operator $T: L^{2}(0,\infty) \rightarrow L^{2}(0,\infty)$ is obtained. As applications, a new bilinear integral inequality with a best constant factor is established and some particular cases are considered.

Key words   norm   self-adjoint   bilinear inequality   Beta function

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