

HILBERT INTEGRAL OPERATOR INEQUALITIES

KUANG JICHANG AND THEMISTOCLES M. RASSIAS

Abstract. In this paper, we establish new Hilbert integral operator inequalities with the general kernel. They are significant extensions and improvements of some known results.

Mathematics subject classification (1991): 26D10.

Key words and phrases: Hilbert inequality, integral operator, kernel.

REFERENCES

- [1] G. H. HARDY, J. E. LITTLEWOOD AND G. POLYA, *Inequalities*, Cambridge University Press, Cambridge, MA, 1952.
- [2] A. E. INGHAM, *A note on Hilbert's inequality*, J. London Math. Soc. **11** (1936), 237–240.
- [3] YANG BICHENG, *On Hilbert's integral inequality*, J. Math. Anal. Appl. **220** (1998), 778–785.
- [4] GAO MINGZHE, TAN LI AND L. DEBNATH, *Some improvements on Hilbert's integral inequality*, J. Math. Anal. Appl. **229** (1999), 682–689.
- [5] KUANG JICHANG, *On Hilbert's integral inequality*, J. Math. Anal. Appl. **233** (1999).
- [6] YANG BICHENG, *On generalizations of Hardy-Hilbert's integral inequalities*, Acta Math. Sinica **41 No. 4** (1998), 839–844.