

# Minimal Norms of Positive Irreducible Operators

PETER P. KLEIN

Computing Center TU Clausthal  
Erzstraße 51, D-38678 Clausthal-Zellerfeld, Germany  
klein@rz.tu-clausthal.de

Using the theory of positive operators in a Banach space given by M. G. KREIN AND M. A. RUTMAN [3] and employing the concepts of a quasi-interior element of a cone and of a positive irreducible operator proposed by M.A. KRASNOSELSKIJ [2] the results in [1] may be extended to such operators in  $l_p$  and in  $L_p$ .

## References

- [1] J. ALBRECHT, Minimal norms of nonnegative irreducible matrices. *Linear Algebra and its Application* **249** (1996), 255–258.
- [2] M. A. KRASNOSELSKIJ, *Näherungsverfahren zur Lösung von Operatorgleichungen*. Akademie Verlag, Berlin, 1973.
- [3] M. G. KREIN & M. A. RUTMAN, Linear operators leaving invariant a cone in a Banach space. *AMS Translations, Series One*, **10** (1962), 260–279.