

# İSTANBUL ANALYSIS SEMINARS

## STRONG MONOTONICITY OF SPECTRAL RADIUS OF POSITIVE OPERATORS

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**Abstract:** The classic result of Perron and Frobenius states that if  $A$  and  $B$  are matrices with nonnegative elements, such that  $A \leq B$ ,  $A$  is irreducible, and  $\rho(A) = \rho(B)$  then  $A = B$ . We extend this result to a large class of band irreducible positive operators on a large class of Banach lattices and provide examples to show that the conditions we put on the operators and the Banach lattices cannot be weakened.

This is joint work with Donald W. Hadwin and Arkady K. Kitover.

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