

Coefficients of Ergodicity and Scrambling Index

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Abstract

Considerable effort has been devoted by researchers in linear algebra to localize the characteristic roots of square matrices, in particular nonnegative matrices. Special attention has been given to the development of upper bounds on the second largest modulus of an eigenvalue of a nonnegative matrix. Such bounds are important, because they determine the convergence of powers of the corresponding matrix. In this talk, we will present some upper bounds on the second largest modulus of the eigenvalue that involve the coefficients of ergodicity. We will define scrambling index for primitive matrix, and show some further improvements on coefficients of ergodicity by using scrambling index.