Institute for Applied Mathematics, Bonn University

Oberseminar Stochastik

Thursday, 7 November 2024, 16:30
Seminarraum LWK 0.011

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Universality for eigenvector overlaps of random matrices

We will discuss the diagonal eigenvector overlaps of large random matrices with independent entries, i.e. the product of the norms of the right and left eigenvectors corresponding to a given eigenvalue. These quantities are also known as eigenvalue condition numbers in view of their relation to the sensitivity of the spectrum to perturbation. We will show that the joint distribution of an eigenvalue and its corresponding diagonal overlap has a universal limit, independent of the distribution of the matrix entries.