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The Limiting Spectral Distribution in Terms of Spectral Density.

Abstract: Random matrix theory has found applications in many fields of research, including statistics. The talk will deal with the limiting spectral theory of large random matrices, i.e., the distribution of the eigenvalues as the size of the matrix goes to infinity. We shall stress the situation when the entries of the matrix are selected from a stationary random field. For this case, we shall point out a relationship between the matrix limiting spectral distribution and the field spectral density derived from its covariances.

The talk will be based on joint papers with M. Banna, F. Merlevède, M. Lifshits, and C. Peligrad.