The norm of a random Toeplitz matrix

Abstract

Bryc-Dembo-Jiang and Hammond-Miller independently recently showed that properly scaled random symmetric Toeplitz matrices possess a limiting spectral distribution. The limiting distributions have unbounded support, and Bryc-Dembo-Jiang raise the question of the asymptotic behavior of the spectral norms of such random matrices. We address this and related questions using tools from the theory of stochastic processes.