Florence Merlevède and Magda Peligrad* (peligrm@ucmail.uc.edu), Department of Mathematical Sciences, University of Cincinnati, PoBox 210025, Cincinnati, OH 45215, and Marwa Banna. On the universality of the limiting spectral distribution for a large class of random matrices with correlated entries.

We develop a method for studying the eigenvalue distribution for a nxn symmetric matrix with dependent entries. The technique is based on a blend of blocking procedure and Lindeberg’s method. For a large class of random matrices with correlated entries, which are functions of independent random variables, we show that the asymptotic behavior of the empirical spectral distributions can be obtained by analyzing a Gaussian matrix with the same covariance structure. This method leads to a variety of interesting asymptotic results for matrices with dependent entries, including applications to linear processes as well as nonlinear Volterra-type processes entries. (Received January 09, 2014)