Meeting: 1003, Atlanta, Georgia, SS 38A, AMS-SIAM Special Session on Orthogonal Polynomials—Random Matrices—Integrable Systems: Interdisciplinary Aspects, I

1003-35-1375  Kenneth D. T-R McLaughlin* (mcl@math.arizona.edu), Department of Mathematics, University of AZ, 617 N Santa Rita Ave, Tucson, AZ 85721, Nicholas Ercolani, AZ, and Virgil Pierce, MA. Random Matrices, Graphical Enumeration and the Continuum Limit of Toda Lattices, III.

We will discuss the use of the continuum limit of the Toda lattice to unravel and determine explicitly coefficients in the asymptotic expansion of the partition function of random matrix theory. (Received October 05, 2004)