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Width and Spacing Distributions in Nuclear Data T.L. JOHNSON[1], J.F. SHRINER, JR., Tenn. Tech. Univ., G.E. MITCHELL[2], North Carolina St. Univ. and TUNL — A recent study focusing on neutron resonance widths[3] has called into question whether the Gaussian orthogonal ensemble (GOE) version of random matrix theory describes nuclear resonance data. The conclusion that the data are inconsistent with GOE seems in contradiction with the analysis of resonance spacing data. We wish to test the possibility that the distribution is not truly GOE but the spacing data by themselves still appear to be described by the GOE. We have simulated both width and spacing distributions that differ by varying amounts from the GOE distribution and determined how one estimate of GOE behavior, the fraction of missing levels, behaves as we deviate increasingly from a GOE distribution. Results will be presented.

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[3]P. E. Koehler, Phys. Rev. C **84**, 034312 (2011).

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