Eigenvalue correlations in quenched QCD at finite density

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Abstract: I will compare eigenvalues of the Dirac operator with a chemical potential obtained from lattice simulations of quenched QCD and from a previously solved random matrix model. By comparing the density and 2-point correlation function I will show that the random matrix theory agrees with QCD at low energies. I will also attempt to extract the scale (Thouless energy) up to which the two theories agree.