Quark Confinement and the Hadron Spectrum XI



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Solutions to QCD 't Hooft Equation in terms of Airy functions

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We consider numerical solutions to 't Hooft equation. We find that the spectrum of eigenvalues coincide with that of Airy differential equation. Physically it corresponds to one dimensional Schrödinger equation for a particle in a triangular potential well. We use Fourier transform of 't Hooft eigenfunctions to get to the coordinate space. The squared eigenfunctions in this space turn out to be nothing else than the square of Airy function.

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