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## Spectra of the Wilson Dirac operator for QCD with dynamical quarks

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The spectrum of the Wilson Dirac operator for  $N_f = 1$  in the microscopic ( $\epsilon$ ) regime including order  $a^2$  corrections is discussed. Exact results are obtained from Wilson chiral Perturbation Theory in sectors of fixed topology. Topology is defined as the number of real eigenvalues of the Wilson Dirac operator. We compute the density of these real modes as well as the microscopic spectral density of the hermitian Wilson Dirac operator. We show how the change of sign of the Wilson fermion determinant associated with the real modes crossing the origin affects the average spectral properties of the Wilson Dirac Operator.

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talk

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