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SPECTRAL ESTIMATES AROUND A CRITICAL LEVEL

R. BRUMMELHUIS, T. PAUL, AND A. URIBE

1. Introduction and main statements. The semiclassical trace formula of [12], [3], [19], [20] is a rigorous version of the Gutzwiller trace formula which provides information about the spectral function of Schrödinger operators in the semiclassical regime. To be more specific, consider an operator of Schrödinger type on a compact manifold M, that is, an operator of the form

$$A_\hbar = \sum_{j=0}^{N} \hbar^j A_j \tag{1}$$

where, for each j, A_j is a differential operator on M of order j. Define the Hamil-

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