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Semiclassical analysis of low lying eigenvalues. I. Non degenerate minima : asymptotic expansions

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ERRATA

Semiclassical analysis of low lying eigenvalues I. Non degenerate minima : Asymptotic expansions.

(*Ann. Inst. Henri Poincaré*, t. XXXVIII, n° 3, 1983, p. 295-308).

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Theorem 5.1 is incorrect as stated. Without an additional assumption the perturbation series for the $E_j(\lambda)$ may have $\lambda^{-l/2}$ terms (l odd) in the *degenerate* case. The last statement in the proof is incorrect: For Theorem 5.1 to be correct one must *assume* that degenerate states in the same well have the same parity. If, for example, $\nu = 2$, $\omega_1 = 1$, $\omega_2 = 2$ in some well, then energies in that well have the form $(n_1 + 1/2) + 2n_2 + 1$ and the states with $(n_1, n_2) = (2, 1)$ and $(0, 2)$ have opposite parity and the same energy. I would like to thank D. Helffer and J. Sjostrand for pointing this out to me.