

Carlsson, Ulf

An infinite number of wells in the semi-classical limit. (English) Zbl 0727.35094
Asymptotic Anal. 3, No. 3, 189-214 (1990).

This paper analyzes the spectrum of the Schrödinger operator $-h^2\Delta + V$ on \mathbb{R}^n . The author extends previous results (finite number of wells) by *B. Helffer* and *J. Sjöstrand* [*Commun. Partial Differ. Equations* 9, 337-408 (1984; [Zbl 0546.35053](#))] to the case of a potential V with an infinite number of well separated wells. This contains in particular a result obtained by *A. Outassourt* [*J. Funct. Anal.* 72, 65-93 (1987; [Zbl 0662.35023](#))] corresponding to a compact perturbation of a periodic potential.

Reviewer: [B.Helffer \(Paris\)](#)

MSC:

- [35P05](#) General topics in linear spectral theory for PDEs
- [81Q20](#) Semiclassical techniques, including WKB and Maslov methods applied to problems in quantum theory
- [35J10](#) Schrödinger operator, Schrödinger equation

Cited in 1 Review
Cited in 11 Documents

Keywords:

[infinite number of wells](#)