

**Voros, A.**

**Unstable periodic orbits and semiclassical quantization.** (English) Zbl 0655.58039  
J. Phys. A 21, No. 3, 685-692 (1988).

The Bohr-Sommerfeld quantization condition has a meaningful extension to classical chaotic systems whose periodic (unstable) orbits are isolated. It provides a semiclassical Euler factorization for the functional determinant of the quantal Hamiltonian, in contrast to the Hadamard infinite product over the eigenvalues by which the exact determinant is defined.

**MSC:**

[58Z05](#) Applications of global analysis to the sciences  
[37G99](#) Local and nonlocal bifurcation theory for dynamical systems  
[53D50](#) Geometric quantization  
[81V10](#) Electromagnetic interaction; quantum electrodynamics

Cited in **24** Documents

**Keywords:**

Bohr-Sommerfeld quantization; chaotic systems; periodic (unstable) orbits; quantal Hamiltonian

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