

Spectral analysis of the semi-relativistic Pauli-Fierz Hamiltonian

Tadao Miyao
Dept of Math & Phys.
Setsunan University
Osaka 572-8508, Japan

Abstract

In my talk I consider an electron with radiation kinetic energy minimally coupled to the quantized radiation field. I study the spectral properties of the hamiltonian at fixed total momentum P . In particular I prove a spectral gap and double degeneracy of ground states for all P .