1. Record Nr.   UNINA9910480615203321

   Autore   Wachsmuth Jakob <1981->

   Titolo   Effective Hamiltonians for constrained quantum systems / / Jakob
                       Wachsmuth, Stefan Teufel

   Pubbl/distr/stampa Providence, Rhode Island : , : American Mathematical Society, , 2013
                       ©2013

   ISBN   1-4704-1673-5

   Descrizione fisica 1 online resource (96 p.)

   Collana   Memoirs of the American Mathematical Society, , 1947-6221 ; ; Volume
                       230, Number 1083

   Disciplina   530.120151539

   Soggetti   Hamiltonian operator
                       Quantum theory
                       Eigenvalues
                       Mechanics
                       Electronic books.

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   "Volume 230, Number 1083 (fifth of 5 numbers)."

   Nota di bibliografia   Includes bibliographical references.

   Nota di contenuto   ""Contents""; ""Chapter 1. Introduction""; ""1.1. The model""; ""1.2.
                       Comparison with existing results""; ""Chapter 2. Main results""; ""2.1.
                       Effective dynamics on the constraint manifold""; ""2.2. The effective
                       Hamiltonian""; ""2.3. Approximation of eigenvalues""; ""2.4. Application
                       to quantum wave guides""; ""Chapter 3. Proof of the main results"";
                       ""3.1. Proof of adiabatic decoupling""; ""3.2. Pullback of the results to
                       the ambient space""; ""3.3. Derivation of the effective Hamiltonian"";
                       ""3.4. Proof of the approximation of eigenvalues""; ""Chapter 4. The
                       whole story""
                       ""4.1. Elliptic estimates for the Sasaki metric""""4.2. Expansion of the
                       Hamiltonian""; ""4.3. Construction of the superadiabatic subspace"";
                       ""Appendix A. Geometric definitions and conventions""; ""A.1. Manifolds
                       of bounded geometry""; ""A.2. The geometry of submanifolds"";
                       ""Bibliography""