1. Record Nr. UNISA996320722703316

| | |
|---|---|
| Autore | Guillemin Victor <1937-> |
| Titolo | Geometric asymptotics / / by Victor Guillemin and Shlomo Sternberg |
| Pubbl/distr/stampa | Providence, Rhode Island : , : American Mathematical Society, , [1977]<br>©1977 |
| ISBN | 0-8218-1633-0<br>0-8218-3208-5 |
| Edizione | [Revised ed.] |
| Descrizione fisica | 1 online resource (500 p.) |
| Collana | Mathematical surveys and monographs ; ; number 14 |
| Disciplina | 516.3/6 |
| Soggetti | Geometry, Differential<br>Asymptotic expansions<br>Geometrical optics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | ""TABLE OF CONTENTS""; ""PREFACE""; ""NOTATION""; ""CHAPTER I. INTRODUCTION. THE METHOD OF STATIONARY PHASE""; ""APPENDIX I. MORSE'S LEMMA AND SOME GENERALIZATIONS""; ""CHAPTER II. DIFFERENTIAL OPERATORS AND ASYMPTOTIC SOLUTIONS""; ""A1. Differential operators""; ""A2. Asymptotic sections""; ""A3. The LAneburg-Lax-Ludwig technique""; ""A4. The methods of characteristics""; ""A5. Bi-characteristics""; ""A6. The transport equation""; ""A7. The Maslov cycle and the Bohr-Sommerfeld quantization conditions""; ""CHAPTER III. GEOMETRICAL OPTICS"" ""A1. The laws of refraction and reflection""""A2. Focusing and magnification""; ""A3. Hamilton's method""; ""A4. First order optics""; ""A5. The Seidel aberrations""; ""A6. The asymptotic solution of Maxwell's equations""; ""CHAPTER IV. SYMPLECTIC GEOMETRY""; ""A1. The Darboux-Weinstein theorem""; ""A2. Symplectic vector spaces""; ""A3. The cross index and the Maslov class""; ""A4. Functorial properties of Lagrangian submanifolds""; ""A5. Local parametrizations of Lagrangian submanifolds""; ""A6. Periodic Hamiltonian systems""; ""A7. Homogeneous symplectic spaces"" ""A8. Multisymplectic structures and the calculus of variations""""" CHAPTER V. GEOMETRIC QUANTIZATION""; ""A1. Curvature forms and |

vector bundles""; ""A2. The group of automorphisms of an Hermitian line bundle""; ""A3. Polarizations""; ""A4. Metalinear manifolds and half forms""; ""A5. Metaplectic manifolds""; ""A6. The pairing of half form sections""; ""A7. The metaplectic representation""; ""A8. Some examples""; ""CHAPTER VI. GEOMETRIC ASPECTS OF DISTRIBUTIONS""; ""A1. Elementary functorial properties of distributions""; ""A2. Traces and characters""; ""A3. The wave front set""
""A4. Lagrangian distributions """"A5. The symbol calculus""; ""Appendix to Section 5""; ""A6. Fourier integral operators""; ""A7. The transport equation""; ""A8. Some applications to spectral theory""; ""APPENDIX TO CHAPTER VI. THE PLANCHEREL FORMULA FOR THE COMPLEX SEMI-SIMPLE LIE GROUPS""; ""CHAPTER VII. COMPOUND ASYMPTOTICS""; ""A0. Introduction""; ""A1. The asymptotic Fourier transform""; ""A2. The frequency set""; ""A3. Functorial properties of compound asymptotics""; ""A4. The symbol calculus""; ""A5. Pointwise behavior of compound asymptotics and Bernstein's theorem""
""Appendix to Section 5 of Chapter VII""""A6. Behavior near caustics""; ""A7. Iterated S[sub(1)] and S[sub(2,0)] singularities, computations""; ""A8. Proofs of the normal forms""; ""A9. Behavior near caustics (continued)""; ""APPENDIX II. VARIOUS FUNCTORIAL CONSTRUCTIONS""; ""A1. The category of smooth vector bundles""; ""A2. The fiber product""; ""INDEX""; ""A""; ""B""; ""C""; ""D""; ""E""; ""F""; ""G""; ""H""; ""I""; ""K""; ""L""; ""M""; ""O""; ""P""; ""R""; ""S""; ""T""; ""U""; ""W""