

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Record Nr.           | UNINA9910788849603321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Autore                  | Lauter Robert <1967->                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Titolo                  | Pseudodifferential analysis on conformally compact spaces // [Robert Lauter]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Pubbl/distr/stampa      | Providence, Rhode Island : , : American Mathematical Society, , [2003]<br>©2003                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| ISBN                    | 1-4704-0375-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Descrizione fisica      | 1 online resource (114 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Collana                 | Memoirs of the American Mathematical Society, , 0065-9266 ; ; number 777                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Disciplina              | 510 s<br>515/.7242                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Soggetti                | Pseudodifferential operators<br>Compact spaces<br>Manifolds (Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Note generali           | "Volume 163, number 777 (fourth of 5 numbers)."                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Nota di bibliografia    | Includes bibliographical references (pages 79-83) and index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Nota di contenuto       | ""Contents""; ""Introduction""; ""Acknowledgments:""; ""Part 1. Fredholm theory for 0-pseudodifferential operators""; ""Chapter 1. Review on basic objects of 0-geometry""; ""1.1. The 0-structure algebra""; ""1.2. The extended 0-blow up""; ""1.3. Relation to the 0-double space $X[\sup(2)]_{\sub(0)}$ ""; ""1.4. The extended 0-triple space $X[\sup(3)]_{\sub(0,e)}$ ""; ""1.5. 0-densities""; ""Chapter 2. The small 0-calculus and the 0-calculus with bounds""; ""2.1. The Schwartz kernel theorem revisited""; ""2.2. The small 0-calculus""; ""2.3. Basic properties of the small 0-calculus""; ""2.4. The 0-calculus with bounds""; ""2.5. Basic properties of the 0-calculus with bounds""; ""2.6. The indicial function""; ""2.7. General bundles""; ""Chapter 3. The b-c-calculus on an interval""; ""3.1. The b-c-structure algebra""; ""3.2. The b-c-double space""; ""3.3. b-c-densities""; ""3.4. The b-c calculus with bounds""; ""3.5. Basic properties of the b-c-calculus""; ""3.6. Fredholm theory for the b-c-calculus""; ""3.7. Invariance of the b-c-calculus under the $R[\sub(+)]$ -action""; ""3.8. $C^*$ -algebras of b-c-operators""; ""3.9. General bundles""; ""Chapter 4. The reduced normal operator"" |

4.1. Definition of the reduced normal operator 4.2. Coordinate invariance of the reduced normal operator 4.3. Scale invariance of the reduced normal operator 4.4. Characterization of the reduced normal operator 4.5. Basic properties of the reduced normal operator 4.6. The case of 0-differential operators 4.7. General bundles Chapter 5. Weighted 0-Sobolev spaces 5.1. Boundedness of 0-operators of order 0 on  $L^2$ -spaces 5.2. Weighted 0-Sobolev spaces 5.3. General bundles Chapter 6. Fredholm theory for 0-pseudodifferential operators 6.1. Symbol reproducing families 6.2. Characterization of Fredholm operators in  $L^2_{(0)}(X; L^2_{(1/2)})$  6.3. Characterization of Fredholm operators in  $L^2_{(m,k)}(X; L^2_{(0)})$  6.4. General bundles Part 2. Algebras of 0-pseudodifferential operators of order 0 Chapter 7.  $C^*$ -algebras of 0-pseudodifferential operators 7.1. Solvable  $C^*$ -algebras 7.2. The reduced normal operator on  $S^*X$  7.3. Extension of the symbolic structure 7.4. The  $C^*$ -algebra generated by the reduced normal operator 7.5. The  $C^*$ -algebra  $B^0_{(a)}(X, L^2_{(0)}) \otimes L^2_{(1/2)}$  7.6. The spectrum of the  $C^*$ -algebra  $B^0_{(a)}(X, L^2_{(0)}) \otimes L^2_{(1/2)}$  Chapter 8.  $L^2$ -algebras of 0-pseudodifferential operators 8.1. Submultiplicative  $L^2$ -algebras 8.2.  $L^2$ -completions of b-c- and 0-calculus Appendix A. Spaces of conormal functions Bibliography Notations Index A B C D E F G H I J L M N O P R S T V W

---