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| 1. Record Nr. | UNINA9910146314503321 |
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| Titolo | Invariant Factors, Julia Equivalences and the (Abstract) Mandelbrot Set / / by Karsten Keller |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2000 |
| ISBN | 3-540-45589-2 |
| Edizione | [1st ed. 2000.] |
| Descrizione fisica | 1 online resource (XII, 208 p.) |
| Collana | Lecture Notes in Mathematics, , 1617-9692 ; ; 1732 |
| Classificazione | 37B10 54H20 30D05 |
| Disciplina | 514.74 |
| Soggetti | Differential equations Topology Differential Equations |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Bibliographic Level Mode of Issuance: Monograph |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | 1. Introduction: Quadratic iteration and Julia equivalences. The Mandelbrot set -- 2. Abstract Julia sets: Symbolic dynamics of the angle-doubling map. Invariant laminations. Julia equivalences -- 3. The Abstract Mandelbrot set: The Abstract Mandelbrot set - an atlas of Abstract Julia sets. The ordered Abstract Mandelbrot set. Renormalization. Correspondence and Translation Principles -- 4. Abstract and concrete theory: Quadratic iteration. Miscellaneous. Appendix: Invariant and completely invariant factors. Simple statements. Shift-invariant factors. Further interesting examples. |
| Sommario/riassunto | This book is mainly devoted to the combinatorics of quadratic holomorphic dynamics. The conceptual kernel is a self-contained abstract counterpart of connected quadratic Julia sets which is built on Thurston's concept of a quadratic invariant lamination and on symbolic descriptions of the angle-doubling map. The theory obtained is illustrated in the complex plane. It is used to give rigorous proofs of some well-known and some partially new statements on the structure of the Mandelbrot set. The text is intended for graduate students and researchers. Some elementary knowledge in topology and in functions |

of one complex variable is assumed.
