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| 1. Record Nr.           | UNINA9910828934003321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Autore                  | Jiang Boju                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Titolo                  | Lectures on Nielsen fixed point theory / / Boju Jiang                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pubbl/distr/stampa      | Providence, Rhode Island : , : American Mathematical Society, , [1983]<br>©1983                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| ISBN                    | 0-8218-7600-7<br>0-8218-5014-8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Descrizione fisica      | 1 online resource (122 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Collana                 | Contemporary mathematics, , 0271-4132 ; ; 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Disciplina              | 514/.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Soggetti                | Fixed point theory<br>Covering spaces (Topology)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Note generali           | Based on courses given at the University of California, Berkeley, winter 1980, and at the University of California, Los Angeles, winter 1981.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Nota di bibliografia    | Includes bibliographical references and index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Nota di contenuto       | <p>""Table of Contents""; ""Introduction""; ""I. Fixed point classes and the Nielsen number""; ""A1. Lifting classes and fixed point classes""; ""A2. The influence of a homotopy""; ""A3. The fixed point index""; ""A4. Nielsen number and its homotopy invariance""; ""A5. The commutativity""; ""A6. The least number of fixed points""; ""II. Computation of the Nielsen number""; ""A1. Coordinates for lifting classes""; ""A2. A lower bound for the Reidemeister number""; ""A3. The trace subgroup of cyclic homotopies""; ""A4. Permutations induced by cyclic homotopies""</p> <p>""A5. Polyhedra with a finite fundamental group""""A6. Converses of the Lefschetz fixed point theorem""; ""III. The fixed point class functor""; ""A1. The category of self-maps and the fixed-point-class functor""; ""A2. Fixed point classes modulo a normal subgroup""; ""A3. Fixed point classes of the iterates""; ""A4. The least number of periodic points""; ""IV. Fixed point classes of a fiber map""; ""A1. Fiber maps""; ""A2. Fixed point classes in the fiber""; ""A3. Essential fixed point classes in the total space""; ""A4. Product formulas for the Nielsen number""</p> <p>""Historical Index""""Bibliography""; ""Index""; ""A""; ""B""; ""C""; ""D""; ""E""; ""F""; ""G""; ""H""; ""I""; ""L""; ""M""; ""N""; ""O""; ""P""; ""R""; ""S""; ""T""; ""U""</p> |

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| 2. Record Nr.           | UNINA9910955037803321                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Autore                  | Kinoshita Shuichi <1949->                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Titolo                  | Structural colors in the realm of nature / / Shuichi Kinoshita                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Pubbl/distr/stampa      | Singapore ; ; Hackensack, NJ, : World Scientific, c2008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ISBN                    | 9789812709752<br>9812709754                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Edizione                | [1st ed.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Descrizione fisica      | 1 online resource (368 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Disciplina              | 591.472                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Soggetti                | Animals - Color<br>Structural colors<br>Animal pigments<br>Plants - Color                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 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 (p. 265-285) and indexes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Nota di contenuto       | 1. Introduction. 1.1. What is structural color? 1.2. Historical overview -- 2. Fundamentals of structural coloration. 2.1. Fundamentals of properties of light. 2.2. Thin-film interference. 2.3. Multilayer interference. 2.4. Diffraction of light and diffraction grating. 2.5. Photonic crystals. 2.6. Light scattering -- 3. Butterflies and moths. 3.1. General descriptions. 3.2. Morpho butterflies. 3.3. Overview of the structural coloration in butterflies and moths -- 4. Beetles and other insects. 4.1. Overview. 4.2. Beetles. 4.3. Damselflies and dragonflies. 4.4. Shield bugs and cicadas. 4.5. Other insects -- 5. Birds. 5.1. Overview. 5.2. Peacocks, pheasants, and ducks. 5.3. Hummingbirds. 5.4. Trogons. 5.5. Pigeons. 5.6. Non-iridescent colorations - kingfishers, parakeets, cotingas, and jays -- 6. Fish. 6.1. General description. 6.2. Static iridophores. 6.3. Motile iridophores. 6.4. Motile iridophores -- 7. Plants -- 8. Miscellaneous. 8.1. Shells. 8.2. Spiders. 8.3. Marine animals -- 9. Mathematical background. 9.1. Calculations of multilayer reflection. 9.2. Model for Morpho butterfly scale. 9.3. Antireflection effect. 9.4. Average refractive index. 9.5. Cholesteric liquid crystal. |
| Sommario/riassunto      | Structural colorations originate from self-organized microstructures,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

which interact with light in a complex way to produce brilliant colors seen everywhere in nature. Research in this field is extremely new and has been rapidly growing in the last 10 years, because the elaborate structures created in nature can now be fabricated through various types of nanotechnologies. Indeed, a fundamental book covering this field from biological, physical, and engineering viewpoints has long been expected. Coloring in nature comes mostly from inherent colors of materials, though it sometimes has a purely p

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