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| Autore                  | Weigel H (Herbert)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Titolo                  | Chiral soliton models for baryons / / H. Weigel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Edizione                | [1st ed. 2008.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Descrizione fisica      | 1 online resource (IX, 274 p.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Collana                 | Lecture Notes in Physics, , 0075-8450 ; ; 743                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Disciplina              | 539.72164                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Soggetti                | Baryons<br>Solitons<br>Particles (Nuclear physics) - Chirality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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       | and Motivation -- Quark Flavor Interaction -- Self-consistent Soliton -- The Skyrme Model -- Soliton Quantization in Flavor SU(2) -- Soliton Quantization in Flavor SU(3) -- Baryon Properties -- Meson-Baryon Scattering in Chiral Soliton Models -- Exotic Baryons -- Multi-baryon Systems in the Skyrme Model.                                                                                                                                                                                                                                                                                                                                                                                              |
| Sommario/riassunto      | This concise research monograph introduces and reviews the concept of chiral soliton models for baryons. In these models, baryons emerge as (topological) defects of the chiral field. The many applications shed light on a number of bayron properties, ranging from static properties via nucleon resonances and deep inelastic scattering to even heavy ion collisions. As far as possible, the theoretical investigations are confronted with experiment. Conceived to bridge the gap between advanced graduate textbooks and the research literature, this volume also features a number of appendices to help nonspecialist readers to follow in more detail some of the calculations in the main text. |