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| 1. Record Nr.           | UNINA9910965495103321                                                                                                                                                                                                                                                                                                                                                                                                        |
| Autore                  | Parker E. N (Eugene Newman), <1927-2022, >                                                                                                                                                                                                                                                                                                                                                                                   |
| Titolo                  | Spontaneous current sheets in magnetic fields : with applications to stellar x-rays // Eugene N. Parker                                                                                                                                                                                                                                                                                                                      |
| Pubbl/distr/stampa      | New York ; , : Oxford University Press, , 2023                                                                                                                                                                                                                                                                                                                                                                               |
| ISBN                    | 0-19-773263-1<br>1-280-45095-9<br>9786610450954<br>0-19-536085-0<br>1-60129-868-4                                                                                                                                                                                                                                                                                                                                            |
| Descrizione fisica      | 1 online resource (435 p.)                                                                                                                                                                                                                                                                                                                                                                                                   |
| Collana                 | International series on astronomy and astrophysics ; ; 1.<br>Oxford scholarship online                                                                                                                                                                                                                                                                                                                                       |
| Disciplina              | 523.72                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Soggetti                | Solar x-rays<br>Cosmic magnetic fields<br>Magnetostatics<br>Sun Corona                                                                                                                                                                                                                                                                                                                                                       |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Formato                 | Materiale a stampa                                                                                                                                                                                                                                                                                                                                                                                                           |
| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Note generali           | Bibliography: p393-418. - Includes index.<br>Previously issued in print: 1994.                                                                                                                                                                                                                                                                                                                                               |
| Nota di bibliografia    | Includes bibliographical references and index.                                                                                                                                                                                                                                                                                                                                                                               |
| Nota di contenuto       | Contents; 1 INTRODUCTION; 2 THE FIELD EQUATIONS; 3 INVARIANCE, DEGENERACY, AND CONTINUOUS SOLUTIONS; 4 FORMAL STRUCTURE OF THE MAGNETOSTATIC EQUATIONS; 5 DIRECT INTEGRATION OF EQUILIBRIUM EQUATIONS; 6 EXAMPLES OF FIELD DISCONTINUITIES; 7 THE OPTICAL ANALOGY; 8 TOPOLOGY OF TANGENTIAL DISCONTINUITIES; 9 FLUID MOTIONS; 10 EFFECTS OF RESISTIVITY; 11 SOLAR X-RAY EMISSION; 12 UNIVERSAL NANOFLARES; References; Index |
| Sommario/riassunto      | Expanding upon the ideas proposed in his seminal book, the author offers the treatment of the magnetohydrodynamic theory of spontaneous magnetic discontinuities. He shows how it can be used to explain the activity of the external magnetic fields of planets, interstellar gas clouds, galaxies, and the magnetic fields in laboratory                                                                                   |

plasmas.

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