1. Record Nr. UNINA9910227347603321 Autore Laurel A. Rachmeler Titolo **Coronal Magnetometry** Frontiers Media SA, 2017 Pubbl/distr/stampa Descrizione fisica 1 electronic resource (172 p.) Collana Frontiers Research Topics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Magnetism defines the complex and dynamic solar corona. It determines the magnetic loop structure that dominates images of the corona, and stores the energy necessary to drive coronal eruptive phenomena and flare explosions. At great heights the corona transitions into the ever-outflowing solar wind, whose speed and three-dimensional morphology are controlled by the global coronal magnetic field. Coronal magnetism is thus at the heart of any understanding of the nature of the corona, and essential for predictive capability of how the Sun affects the Earth. Coronal magnetometry is a subject that requires a concerted effort to draw together the different strands of research happening around the world. Each method provides some information about the field, but none of them can be used to determine the full 3D field structure in the full volume of the corona. Thus, we need to combine them to understand the full picture. The purpose of this Frontiers Research Topic on Coronal Magnetometry is to provide a forum for comparing and coordinating these research methods, and for discussing future opportunities.