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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Continuum radiation processes -- Observational diagnostics -- Magnetic Fields in the Milky Way -- Magnetic fields in external galaxies -- The galactic dynamo -- Magnetic fields in AGN -- Intergalactic magnetic fields.
Sommario/riassunto	This course-tested textbook conveys the fundamentals of magnetic fields and relativistic plasma in diffuse cosmic media, with a primary focus on phenomena that have been observed at different wavelengths. Theoretical concepts are addressed wherever necessary, with derivations presented in sufficient detail to be generally accessible. In the first few chapters the authors present an introduction to various astrophysical phenomena related to cosmic magnetism, with scales ranging from molecular clouds in star-forming regions and supernova remnants in the Milky Way, to clusters of galaxies. Later chapters address the role of magnetic fields in the evolution of the interstellar medium, galaxies and galaxy clusters. The book is intended for advanced undergraduate and postgraduate students in astronomy and

physics and will serve as an entry point for those starting their first research projects in the field.
