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Nota di contenuto	Frontmatter -- Preface -- Contents -- List of Contributing Authors -- 1 A short history of multiferroics -- 2 Spin dynamics, antiferrodistortion and magnetoelectric interaction in multiferroics. The case of BiFeO ₃ -- 3 Hexagonal manganites: Strong coupling of ferroelectricity and magnetic orders -- 4 Spiral spin structures and skyrmions in multiferroics -- 5 Non-collinear magnetism & multiferroicity: the perovskite case -- 6 Ferroelectric polarization in multiferroics -- 7 Probing local order in multiferroics by transmission electron microscopy -- 8 Controlling of light with electromagnons -- 9 Dynamical magnetoelectric phenomena of skyrmions in multiferroics -- 10 Magneto-electric multiferroics: designing new materials from first-principles calculations -- 11 Domains and domain walls in multiferroics -- 12 Multiferroic heterostructures for spintronics -- Index
Sommario/riassunto	Multiferroics, materials with a coexistence of magnetic and ferroelectric order, provide an efficient route for the control of magnetism by electric fields. The authors cover multiferroic thin-film heterostructures, device architectures and domain/interface effects. They critically discuss achievements as well as limitations and assess opportunities for future applications.

