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Soggetti	Plasma (Ionized gases) Optics Electrodynamics Particle acceleration Physics Plasma Physics Classical Electrodynamics Particle Acceleration and Detection, Beam Physics Applied and Technical Physics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Methods of Solving the Kinetic Vlasov-Boltzmann Equation in Case of Bounded Magnetized Plasmas -- Surface Electron Cyclotron TM – ode Waves -- Surface Electron Cyclotron X-ode Waves -- Surface Electron Cyclotron O-ode Waves.
Sommario/riassunto	This book is the first of its kind devoted to surface waves propagating across an external static magnetic field at harmonics of the electron cyclotron frequency. Based on comprehensive theoretical studies carried out over the course of about forty years, it presents unique material on various characteristics of these transverse waves, namely, dispersion properties and their dependence on numerous design peculiarities of plasma waveguides; damping due to interaction with the plasma surface (the kinetic channel) and collisions between plasma particles (the Ohmic channel); interaction with flows of charged

particles moving above the plasma surface; parametric excitation due to the effect of an external radiofrequency field; and their power transfer for sustaining gas discharges. Clarifying numerous complicated mathematical issues it is a valuable resource for postgraduate students and experts in plasma physics, electromagnetic waves, and the kinetic theory of plasmas.
