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1991: Another Look; Outer Radiation Belt Flux Dropouts: Current Understanding and Unresolved Questions; Rapid Radiation Belt Losses Occurring During High-Speed Solar Wind Stream-Driven Storms: Importance of Energetic Electron Precip; Background Magnetospheric Variability as Inferred From Long Time Series of GOES Data; Section VI: Wave-Particle Interactions
Generation Processes of Whistler Mode Chorus Emissions: Current Status of Nonlinear Wave Growth Theory Aspects of Nonlinear Wave-Particle Interactions; Linear and Nonlinear Growth of Magnetospheric Whistler Mode Waves; High-Energy Electron Diffusion by Resonant Interactions With Whistler Mode Hiss; Recent Advances in Understanding the Diffuse Auroral Precipitation: The Role of Resonant Wave-Particle Interactions; Section VII: Energy Coupling in the Inner Magnetosphere; The Role of the Earth's Ring Current in Radiation Belt Dynamics; Ring Current Asymmetry and the Love-Gannon Relation The Importance of the Plasmasphere Boundary Layer for Understanding Inner Magnetosphere Dynamics The Role of Quiet Time Ionospheric Plasma in the Storm Time Inner Magnetosphere; Cold Ion Outflow as a Source of Plasma for the Magnetosphere; What Happens When the Geomagnetic Field Reverses?; Section VIII: Radiation Belts and Space Weather; What the Satellite Design Community Needs From the Radiation Belt Science Community; Storm Responses of Radiation Belts During Solar Cycle 23: HEO Satellite Observations
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Sommario/riassunto

Published by the American Geophysical Union as part of the Geophysical Monograph Series, Volume 199. Dynamics of the Earth's Radiation Belts and Inner Magnetosphere draws together current knowledge of the radiation belts prior to the launch of Radiation Belt Storm Probes (RPSP) and other imminent space missions, making this volume timely and unique. The volume will serve as a useful benchmark at this exciting and pivotal period in radiation belt research in advance of the new discoveries that the RPSP mission will surely bring. Highlights include the following: a review of
