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Nota di contenuto	Radiometric Tracking Techniques for Deep-Space Navigation; Table of Contents; Foreword; Preface; Acknowledgments; Chapter 1: Introduction; References; Chapter 2: Earth-Based Tracking and Navigation Overview; 2.1 Navigation Process; 2.2 Reference Frames; 2.3 Spacecraft Equations of Motion; References; Chapter 3: Range and Doppler Tracking Observables; 3.1 The Tracking Link; 3.2 Range and Doppler Information Content; 3.3 Tracking Data Error Sources; 3.3.1 Clock Instability; 3.3.2 Instrumental Effects; 3.3.3 Transmission Media; 3.3.4 Platform Parameters 3.4 The GPS Calibration and Tracking System 3.5 Range and Doppler System Measurement Performance; 3.6 Range and Doppler System Positioning Performance; References; Chapter 4: VLBI Tracking Observables; 4.1 VLBI System Description; 4.1.1 Delta VLBI; 4.1.2 Radio Source Reference Frame; 4.1.3 Radio and Planetary Frame Tie; 4.1.4 VLBI Calibration System; 4.1.5 Major Error Sources; 4.2 Spacecraft VLBI System Performance; 4.3 Utility of Open-Loop Recordings; References; Chapter 5: Future Directions in Radiometric Tracking; 5.1 Doppler and Range; 5.2 Very Long Baseline Interferometry

5.3 Connected-Element Interferometry5.4 Same-Beam Interferometry;
5.5 Spacecraft-to-Spacecraft Tracking; References; Glossary; Acronyms

Sommario/riassunto

Radiometric Tracking Techniques for Deep-Space Navigation focuses on a broad array of technologies and concepts developed over the last four decades to support radio navigation on interplanetary spacecraft. In addition to an overview of Earth-based radio navigation techniques, the book includes a simplified conceptual presentation of each radiometric measurement type, its information content, and the expected measurement accuracy. The methods described for both acquiring and calibrating radiometric measurements also provide a robust system to support guidance and navigation for future robotic