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Nota di contenuto	Intro -- Editorial Board -- Preface -- Contents -- GNSS and Their Augmentations -- A Study on SBAS-RTK Integrated Positioning Technologies -- 1 Introduction -- 2 RTK Service Risk Analysis -- 2.1 RTK Fault Factor -- 2.2 Performance Impact Analysis -- 3 SBAS-RTK Integrated Positioning -- 3.1 SBAS Positioning -- 3.2 Data Detection -- 3.3 Weighted RTK Positioning -- 3.4 Data Check -- 4 Test and Verification -- 5 Summary -- References -- Research on the TESLA Authentication Algorithm for BDSBAS -- 1 Introduction -- 2 Principles of SBAS Message Authentication -- 2.1 Authentication Principle -- 2.2 SBAS Authentication Structure -- 3 BDSBAS Message Authentication Design -- 3.1 Chinese Commercial Cryptography Standard Algorithm -- 3.2 Design of the TESLA Authentication Protocol Based on the Chinese Commercial Cryptography Algorithm -- 3.3 SBAS User -- 3.4 Message Design -- 3.5 BigMAC -- 3.6 LittleMAC -- 4 Simulation Experiment -- 4.1 Key Performance Indicators -- 4.2 Simulation Analysis -- 5 Conclusion -- References -- Single Satellite Positioning Method and Error Characteristic Analysis of LEO Navigation Satellites -- 1 Introduction -- 2 Single Satellite Pseudo-Range and Doppler Positioning Principle and Error Modeling -- 2.1 Measurement Model -- 2.2 LSM Positioning Algorithm Utilizing Pseudo-Range and Doppler -- 2.3 CRLB of Positioning Error -- 2.4 Error Ellipsoid of Positioning Error -- 3 Simulation and Verification -- 3.1 Simulation Conditions -- 3.2

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Sommario/riassunto

This book presents selected research papers from China Satellite Navigation Conference (CSNC) 2024, held in Jinan, China, on 22–24 May 2024. These papers discuss the technologies and applications of the Global Navigation Satellite System (GNSS) and in particular the latest advances in the China BeiDou System (BDS). They are divided into 8 topics to match the corresponding sessions at CSNC 2024, which broadly covered key topics in GNSS. Readers learn about the BDS and keep abreast of the latest advances in GNSS technologies and applications.

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