Dr. Junsheng Ding (丁君生) Curriculum Vitae

Post Doctoral Fellow of The Hong Kong Polytechnic University

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EDUCATION

1. 2018-2023, PhD, Geodesy, University of Chinese Academy of Sciences, Beijing, China
2. 2018-2023, PhD, Geodesy, Shanghai Astronomical Observatory, CAS, Shanghai, China
3. 2014-2018, BSc, Geomatics Engineering, Chang'an University, Xi'an, China

RESEARCH INTERESTS

1. Satellite Navigation & Tropospheric Modeling
2. PPP-RTK Atmosphere & AI for Geodesy

AWARD AND HONORS

1. Outstanding Graduates of Shanghai (2023)
2. National Scholarship for Doctoral Students (2022)
3. Zhu-Li-Yuehua Outstanding Doctoral Scholarship of CAS (2022)
4. First Class Academic Scholarship of UCAS (2021, 2022)
5. Merit Student of UCAS (2020, 2021, 2022, 2023)
6. Individual Scholarship of Chang'an University (2017)
7. The Third Prize of the 10th Challenge Cup Competition of Chang'an University (2017)
8. The First Prize of the 10th Challenge Cup Competition of Chang'an University (2017)
9. National Scholarship for Encouragement (2016)
10. The Third Prize of the 4th ACM-ICPC in Shaanxi Province (2016)
11. The HI-TARGET Scholarship (2015)
12. Ding Family "Zhong Cheng" Education Scholarship (2014)
13. The National Third Prize of the 21st National Applied Physics Knowledge Contest (2011)

EXPERIENCE

1. 2023.7-Present, Postdoctoral Fellow, The Hong Kong Polytechnic University, Hong Kong, China
2. 2019.9-2021.9, Graduate Assistant, Shanghai Astronomical Observatory, CAS, Shanghai, China
3. 2018.7-2018.8, Summer Trainee, National Institute of Metrology, China, Beijing, China
4. 2017.7-2017.8, Software testing intern, Trimble R&D Center in China, Trimble Inc., Xi'an, China

PUBLICATIONS

1. **Ding J.S.** (2024) Research on GNSS tropospheric delay modeling and spatial-temporal characteristics analysis of bias, *Acta Geodaetica et Cartographica Sinica*, doi: 10.11947/j.AGCS.2024.20230177. **(EI)**
2. **Ding J.S.**, Chen J.P., Wang J.G. and Zhang Y.Z. (2024) A novel method for tropospheric delay mapping function vertical modelling, *Journal of Geodesy*, doi: 10.1007/s00190-024-01845-2. **(SCI)**
3. **Ding J.S.**, Chen J.P., Wang J.G. and Zhang Y.Z. (2023) Characteristic difference of tropospheric delay

between Nevada Geodetic Laboratory products and NWM ray-tracing, *GPS Solutions*, doi: 10.1007/s10291-022-01385-2**. (SCI)**

4. **Ding J.S.**, Chen J.P., Tang W.J. and Song Z.Y. (2022) Spatial–Temporal Variability of Global GNSS-Derived Precipitable Water Vapor (1994–2020) and Climate Implications, *Remote Sensing*, doi: 10.3390/rs14143493. **(SCI)**
5. **Ding J.S.**, Chen J.P. and Tang W.J. (2022) Increasing Trend of Precipitable Water Vapor in Antarctica and Greenland, China Satellite Navigation Conference 2022, *Lecture Notes in Electrical Engineering*, doi:10.1007/978-981-19-2588-7_27. **(EI)**
6. **Ding J.S.** and Chen J.P. (2021) Accuracy Variability of GNSS PWV in the Range of Small and Medium Scale Areas, China Satellite Navigation Conference, *CSNC 2021*, doi:10.26914/c.cnkihy.2021.002146.
7. **Ding J.S.**, Chen J.P. and Wang J.G. (2020) Quality Control Method for ZTD Modeling Based on GNSS Observation Data, *Journal of Astronautics*, doi:10.3873/j.issn.1000 1328.2020.09.010. (in Chinese) **(EI)**
8. **Ding J.S.** and Chen J.P. (2020) Assessment of Empirical Troposphere Model GPT3 Based on NGL's Global Troposphere Products, *Sensors*, doi:10.3390/s20133631. **(SCI)**
9. Tang W.J., Chen J.P., Zhang Y.Z., **Ding J.S.** and Song Z.Y. (2024) Refined Troposphere Delay Models by NWM Ray-tracing for Pseudolite Positioning System and Their Performance Assessment, *Advances in Space Research*, doi: 10.1016/j.asr.2024.02.034. **(SCI)**
10. Song Z.Y., Chen J.P., Zhang Y.Z., Yu C. and **Ding J.S.** (2023) Real-time Multi-GNSS Precise Point Positioning with Ambiguity Resolution Based on the BDS-3 Global Short-message Communication Function, *GPS Solutions*, doi:10.1007/s10291-023-01477-7. **(SCI)**
11. Chen J.P., Zhang Y.Z., Yu C. and **Ding J.S.** (2022) Processing Algorithms and Performance Evaluation of BDS RDSS Location Reporting Service, *Acta Geodaetica et Cartographica Sinica*. (in Chinese) **(EI)**
12. Tang W.J., Chen J.P., Yu C., **Ding J.S.** and Wang R.Y. (2021) A New Ground-based Pseudolite System Deployment Algorithm Based on MOPSO, *Sensors*, doi:10.3390/s21165364. **(SCI)**
13. Chen Q., Chen J.P., Yu C., Zhang Y.Z. and **Ding J.S.** (2020) Comparison of BDS Station Clock Short-term Prediction Models and their Applications in Precise Orbit Determination, *Chinese Astronomy and Astrophysics*, doi: 10.1016/j.chinastron.2020.05.008. **(SCI)**
14. Chen J.P., Wang J.G., Wang A.H., **Ding J.S.** and Zhang Y.Z. (2020) SHAtropE—A Regional Gridded ZTD Model for China and the Surrounding Areas, *Remote Sensing*, doi:10.3390/rs12010165. **(SCI)**
15. Cui J., Chen J.P., Wang B., Yu C., **Ding J.S.** and Wang R.Y. (2022) Characteristic Analysis of Satellite DCB Products Provided by DLR and CAS, *Progress in Astronomy*. doi:10.3969/j.issn.1000-8349.2022.03.01. (in Chinese) (**CSCD**)

ACADEMIC REPORT

1. **Ding J.S.**, Chen J.P., Wang J.G. and Zhang Y.Z. (2023), *Characteristic differences in tropospheric delay between NGL products and NWM ray-tracing*, Speaker, European Navigation Conference (ENC 2023), Session S02–Position determination, held on 31 May–2 June, 2023 in Noordwijk, Netherlands.
2. **Ding J.S.**, Chen J.P. and Tang W.J. (2022), *Increasing Trend of Precipitable Water Vapor in Antarctica and Greenland, Speaker,* China Satellite Navigation Conference 2022, Session S01–Industry Applications of Satellite Navigation, held on 25–27 May, 2022 in Beijing, China.
3. **Ding J.S.**, Chen J.P. and Tang W.J. (2022), *Increasing Trend of Precipitable Water Vapor in Antarctica and Greenland, Speaker,* EGU General Assembly 2022, Session G5.2–Atmospheric and Environmental

Monitoring with Space-Geodetic Techniques and Contributions to Extreme Weather Studies, held on 23–27 May, 2022 in Vienna, Austria. [link]

4. **Ding J.S.** and Chen J.P. (2021), *Global GNSS PWV Accuracy Assessment and Spatio-temporal Characteristics Analysis (1994-2020), Speaker,* 4-th Congress of China Geodesy and Geophysics (4-th CCGG), CNC-IAMAS, M01: Atmospheric Sounding and Remote Sensing, held on July 17-18, 2021 in Qingdao, China. [link]
5. **Ding J.S.** and Chen J.P. (2021), *Long-period Accuracy Evaluation and Spatial-temporal Characterization Analysis of Global GNSS-derived PWV, Speaker,* Scientific Assembly of the International Association Geodesy (IAG2021), Session 5.5: Assimilation of Geodetic Observations in the Modelling of the Atmosphere, Cryosphere and Hydrosphere (Joint ICCC), held on June 28 - July 2, 2021 in Beijing, China. [link]
6. **Ding J.S.** and Chen J.P. (2020), *Assessment of Empirical Troposphere Model GPT3 Based on NGL's Global Troposphere Products, Speaker,* International Association of Professionals in Global Positioning Systems (CPGPS) Forum 2020, Session 5: System and Design of Navigation Signal, held on Nov. 12-15 2020 in Shanghai, China. [link]