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

- 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. Tang W.J., Chen J.P., Zhang Y.Z. and **Ding J.S.** (2024) Analysis of GNSS/Pseudolite Integrated Positioning Accuracy in Urban Canyon Environment. *2024 14th International Conference on Indoor Positioning and Indoor Navigation (IPIN)*. doi: 10.1109/IPIN62893.2024.10786141. **(EI)**
- 2. **Ding J.S.**, Mi X.L., Chen W., Chen J.P., Wang J.G., Zhang Y.Z., et al. (2024) Forecasting of Tropospheric Delay using AI Foundation Models in support of Microwave Remote Sensing. *IEEE Transactions on Geoscience*

- and Remote Sensing. doi: 10.1109/TGRS.2024.3488727. (SCI)
- 3. **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)**
- 4. 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)**
- 5. **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)**
- 6. 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)**
- 7. **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)**
- 8. 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**)
- 9. **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**)
- 10. 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)**
- 11. **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)**
- 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. **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.
- 14. 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**)
- 15. **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)**
- 16. **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)
- 17. 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)

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]