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TEACHING EXPERIENCE

Undergraduate Courses:

- 《Basis of Satellite Navigation》
- 《Progress in Satellite Navigation and Remote Sensing》

Graduate Courses:

- 《Advanced Theory and Method of Surveying Data Processing》
- 《Advanced Progress and Application in Space Geodesy Technology》
- 《High-precision GNSS Data Processing Software and Its Application》
- 《Advanced Progress in Satellite Navigation and Remote Sensing》
- 《Data Processing Project of Satellite Navigation and Remote Sensing》

RESEARCH INTERESTS

- Antarctic precise positioning
- GNSS precise point positioning with application of the equivalence principle
- GNSS-PWV retrieval in Antarctic region based on machine learning algorithms and its application in extreme weather forecasting
- Planetary orbit disturbed by the solar gravitational oblateness

EDUCATION BACKGROUND

- 09/2006 - 07/2010 Chang'an University

Graduating with a BSc. degree in Survey and Mapping Engineering

- 09/2010 - 12/2012 Chang'an University

Graduating with a Master degree in Geodesy and Surveying Engineering

- 03/2013 - 09/2016 Technical University of Berlin

Graduating with a Doctor degree in Geodesy and Surveying Engineering

EMPLOYMENT HISTORY

- 03/2017- Shandong University at Weihai, School of Space Science and Physics, associate researcher

RESEARCH VISITS

- 03/2013 - 09/2016 GFZ German Research Centre for Geosciences
- 01/2018 – 04/2018 Virginia Polytechnic Institute and State University

(CURRENTLY SUPPORTED) RESEARCH PROJECTS

- 2016YFB0501902, “High performance cloud processing satellite navigation precise positioning and service technology”, sub-project of National key Research Program of China “Collaborative Precision Positioning Project”, 2016.07-2021.06, host (1/13).
- ZR2017PD005, “Polar sea ice - water vapor inversion and correlation research based on GNSS technology”, Shandong Provincial Natural Science Foundation, 2017.07-2018.12, host (1/7).
- SKLGIE2017-Z-2-2, “Correlation research of real-time ice concentration and atmospheric precipitable water vapor by using GNSS technology”, Open Fund for the State Key Laboratory of Geo-Information Engineering, 2018.01-2019.12, host (1/7).
- “Subsystem for precise service product processing (tropospheric zenith delay, ionospheric delay and hardware delay)”, sub-project of BDS key program, 2017.09-2020.12, participate (2/13).
- 41574025, “Research on 3-body problem theoretical solution and gravity assist problem”, general project of National Natural Science Foundation, 2016.01-2019.12, participate (6/9).

SELECTED PUBLICATIONS

Paper Publications:

[1] Jiang N, Xu T, **Xu Y***, Xu G, Schuh H (2020) Detecting and Repairing Inter-system Bias Jumps with Satellite Clock Preprocessing. Remote Sensing, 2020, 12(5): 850.

[2] Jiang N, Xu T, **Xu Y***, Xu G, Schuh H (2019) Assessment of Different Stochastic Models for Inter-System Bias between GPS and BDS. Remote Sensing, 2019, 11(8): 989.

[3] Huang G, Cui B, **Xu Y***, Zhang Q (2019) Characteristics and performance

evaluation of Galileo on-orbit satellites atomic clocks during 2014-2017. Adv. Space Res., 2019, 63(9), 2899-2911 DOI: 10.1016/j.asr.2018.01.034.

[4] **Xu Y**, Shen Y, Xu G, Shan X, Rozelot J (2017) Perihelion precession caused by solar oblateness variation in equatorial and ecliptic coordinate systems. Monthly Notices of the Royal Astronomical Society, 2017, 472, 2686-2693, DOI: 10.1093/mnras/stx2122.

[5] **Xu Y**, Jiang N, Xu G, Zhang L, Schuh H (2017) Fast BDS Positioning Convergence based on the Contribution of GPS Observations. Marine Geodesy. 2017, 40(6): 404-415. DOI: 10.1080/01490419.2017.1323810.

[6] **Xu Y**, Jiang N, Xu G, Yang Y, Schuh H (2015) Influence of meteorological data and horizontal gradient of tropospheric model on precise point positioning. Adv. Space Res., 2015, 56(11), 2374-2383.

[7] **Xu Y**, Yang Y, Zhang Q, Xu G (2011) Solar Oblateness and Mercury's Perihelion Precession. Mon. Not. R. Astron. Soc., 2011, 415, 3335-3343.

[8] **Xu Y**, Yang Y, Xu G (2012) Precise determination of GNSS trajectory in the Antarctic airborne kinematic positioning. In: Proceedings / China Satellite Navigation Conference (CSNC) 2012: revised selected papers, (Lecture Notes in Electrical Engineering; vol. 159), Springer, 95-105.

[9] **Xu Y**, Yang Y, Xu G, Jiang N (2013) Ionospheric delay in the Antarctic GPS positioning. Journal of Beijing University of Aeronautics and Astronautics, 2013, 39(10), 1370-1375.

[10] **Xu Y**, Yang Y, Xu G (2014) Analysis on Tropospheric Delay in Antarctic GPS Positioning. Journal of Geodesy and Geodynamics, 2014, 34(1): 104-107.

[11] Jiang N, **Xu Y**, Xu T, Xu G, Sun Z, Schuh H (2017) GPS/BDS short-term ISB modelling and prediction. GPS Solutions, 2017, 21(1): 163-175. DOI: 10.1007/s10291-015-0513-x.

[12] Jiang N, Xu T, **Xu Y** (2013) Influence of the Receiver Antenna random to GPS Positioning Precision. Geomatics and Information Science of Wuhan University, 2013, 38(5), 566-570.

[13] Jiang N, Xu T, **Xu Y** (2013) A real-time precise point positioning method without precise clock bias. Journal of Central South University (Science and Technology), 2013, 44(11), 4520-4526.

[14] Jiang N, Xu T, **Xu Y** (2013) Multipath error estimation and its improved algorithm for Chinese IGS stations. Journal of Geodesy and Geodynamics, 33(2), 143-146.

[15] Jiang N, Xu T, **Xu Y** (2013) Real-time estimation of satellite clock and PPP precision analysis based on IGS regional net. Journal of Geodesy and Geodynamics, 2013, 33(5), 44-48.

[16] Jiang N, Xu T, **Xu Y** (2012) An Improved Method for Determination of GOCE Orbital Velocity of the Geometric Method. Bulletin of Surveying and Mapping, 2012, 11, 7-10.

[17] Yang Y, Ren X, **Xu Y** (2013) Main progress of Adaptively Robust Filter with Applications in Navigation. Journal of Navigation and Positioning, 2013, 1(1), 9-15.

Monograph Publication:

[1] Xu G, **Xu Y*** (2016) GPS – Theory, Algorithms and Applications, 3rd Ed. Springer Heidelberg, 2016, ISBN: 978-3-662-50365-2.

[2] **Xu Y** (2016) GNSS Precise Point Positioning with Application of the Equivalence Principle. Dissertation, DGK, Reihe C, Heft Nr. 783, Press of the Bavarian Academy of Sciences, 2016, ISBN: 978-3-7696-5195-9.

[3] Xu G, **Xu Y*** (2017) GPS – Theory, Algorithms and Applications, 3rd Ed (Chinese translation). Science Press, 2017, ISBN: 978-7-03-054611-1.