Shuang-jing Xu — CV

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Personal Details

Date of birth: 1990 August
Place of birth: Shandong, People's Republic of China
Nationality: Chinese
Languages: Chinese (native), English (fluent)
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Experience

Job

- **Post-Doc.** — **Daejeon, South Korea**
  Korea Astronomy and Space Science Institute (KASI) — *2020.09 - Present*
- **Research Assistant** — **Shanghai, China**
  Shanghai Astronomical Observatory (SHAO), Chinese Academy of Sciences — *2019.01 - 2020.08*

Education

- **Ph.D., VLBI Astrometry and Geodesy** — **Shanghai, China**
  Shanghai Astronomical Observatory & University of Chinese Academy of Sciences, — *2013.09 - 2019.01*
- **B.S., Geomatics Engineering** — **Shandong, China**
  School of Architectural Engineering, Shandong University of Technology, — *2009.09 - 2013.06*

Publication List

- **Xu, S.**, Zhang, B., Reid, M. J. et al. *"A Milliarcsecond Accurate Position for Sagittarius A*"*. **ApJ**, in press (2022). (ADS Link)
- **Xu, S.**, Imai, H., Yun, Y., Zhang, B., et al. *"The Astrometric Animation of Water Masers towards the Mira Variable BX Cam"*. **ApJ**, in press (2022). (ADS Link)
- **Xu, S.**, Zhang, B., Reid, M. J. et al. *"Comparison of Gaia DR2 Parallaxes of Stars with VLBI Astrometry"*. **ApJ**, 875:114 (2019). (ADS Link)
- **Xu, S.**, Zhang, B., Reid, M. J. et al. *"The Parallax of the Red Hypergiant VX Sgr with Accurate Tropospheric Delay Calibration"*. **ApJ**, 859:14 (2018). (ADS Link)
- Sakai, N., Zhang, B., **Xu, S.**, et al. *"EAVN Astrometry toward the Extreme Outer Galaxy: Kinematic distance with the proper motion of G034.84-00.95"*. **Submitted to PASJ**, (2022).
- Sun, Y., Zhang, B., Reid, M. J., **Xu, S.**, et al. *"A Very Long Baseline Array Trigonometric Parallax for RR Aql and the Mira Period-Luminosity Relation"*. **ApJ**, 931:74 (2022). (ADS Link)
- Yao, D., Wu, Y., Zhang, B., Sun, J., Sun, Y., **Xu, S.** et al. *"The NTSC VLBI System and its application in UT1 measurement"*. RAA, 20:093 (2020). (ADS Link)

Proceedings

- **Xu, S.**,Jike, T., Jung, T., et al. *"The K Band Geodesy with the East Asian VLBI Network"*. Proceedings of the 25th European VLBI Group for Geodesy and Astrometry Working Meeting, pp. 71-73 (2021). (ADS Link)

Selected Talks

- 2022.10- **(Invited)** "Validate Gaia Stellar Reference Frame via VLBI Astrometry of Radio Stars"; ACAMAR Themed Workshop on VLBI 2022; Online
- 2022.09- **(Invited)** "High Frequency Geodetic VLBI with EAVN and KVN"; The 2nd Malaysian VLBI Workshop; Kuala Lumpur(Online), Malaysia
- 2022.08- "The Astrometric Animation of Water Masers towards the Mira Variable BX Cam"; Focus Meeting 7 "Astrometry for 21st Century Astronomy" at the IAUGA 2022; Busan, Korea
- 2021.06- **(Invited)** "EAVN K-band Geodesy"; Optical Clock Comparison using VLBI Workshop; Online
- 2021.03- "The K Band Geodesy with the East Asian VLBI Network"; The 25th European VLBI Group for Geodesy and Astrometry Working Meeting; Online
- 2021.03- "The Progress of K band Geodesy with EAVN"; The 13th East Asian VLBI Workshop; Chiang Mai(Online), Thailand
- 2019.09- "Verifying Gaia Astrometric Results of Stars with VLBI Astrometry"; The 12th East Asian VLBI Workshop; Ibaraki, Japan
- 2018.09- "Radio Astrometry in Gaia Era"; The 11th East Asian VLBI Workshop; PyeongChang, Korea
- 2017.11- "Accurate tropospheric delay calibration and its application for KaVA astrometry"; 2017 KaVA/EAVN Joint Science Working Group Meeting; Daejeon, Korea
- 2016.03- "The Statistic Analysis of Atmospheric Effects of Differential VLBI"; The 9th IVS General Meeting; Johannesburg, South Africa

Main Projects

- Project 1: *"K Band Geodesy with the East Asian VLBI Network (EAVN)"*; (PI), (Talk)
- Project 2: *"K/Q/W/D Band Geodesy with the Korean VLBI Network (KVN)"*; (PI).
- Project 3: *"EAVN Synthesis of Stellar Maser Animations (ESTEMA)"*; (Paper)
- Project 4: *"Multi-frequency AGN Survey with KVN (MASK)"*.
- Project 5: *"Validate Gaia Stellar Reference Frame via VLBI Astrometry of Radio Stars"*.
- Project 6: *"Astrometric Performance Evaluation of EAVN"*.
- PI Observation Experience:
  EAVN (>200 hr), KVN (>50 hr), VLBA (>20 hr), EVN (>30 hr), LBA (>40 hr)

Skills

Programming Languages: Python, MATLAB, R, Shell script
VLBI software: AIPS/ParselTongue, Difmap, Calc/Solve(nuSolve), SKED, SCHED, HOPS, CASA