Qian Hu

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EDUCATION

University of Glasgow **Start from Sep. 2021**
PhD Student in gravitational-wave astronomy
Advisor: Dr. John Veitch & Prof. Ik Siong Heng

University of Western Australia **Jul. 2019 - Aug. 2019, June 2020 - Jul. 2021**
Undergraduate Research Intern. Research topic: Gravitational wave source localization.
Advisor: Prof. Linqing Wen

University of Science and Technology of China (USTC) **Sep. 2017 - Jul. 2021**
B.S. (Honor) in Astrophysics, GPA: 3.90/4.30.
Thesis: Rapid Sky Localization of Gravitational Waves from Compact Binary Coalescences (in Chinese)
Advisor: Prof. Wen Zhao & Prof. Linqing Wen

REASEARCH INTERESTS

- **Gravitational-Wave (GW) Astrophysics**: Exploring GW's physical implications, including black holes, neutron stars, and cosmology.
- **GW Parameter Estimation Techniques**: High-precision and robust parameter estimation for GWs; Parameter estimation for next generation GW detectors.

PUBLICATIONS

1. **Qian Hu**, Cong Zhou, Jhao-Hong Peng, Linqing Wen, Qi Chu, Manoj Kovalam, *Semi-analytical Approach for Sky Localization of Gravitational Waves*. arXiv:2110.01874. Accepted by PRD.
2. **Qian Hu**, Mingzheng Li, Rui Niu, and Wen Zhao. *Joint Observations of Space-borne Gravitational-wave Detectors: Source Localization and Implication for Parity-violating Gravity*, Phys. Rev. D 103, 064057
3. Wen Zhao, Tan Liu, Linqing Wen, Tao Zhu, Anzhong Wang, **Qian Hu**, and Cong Zhou. *Model-independent test of the parity symmetry of gravity with gravitational waves*, The European Physical Journal C, 80(7), Jul 2020.

TEACHING

Physical experimental software design & development **July 2020 - Dec 2020**
National virtual experimental teaching project
- Designed and developed an educational application of GW data simulation, data analysis and Bayesian parameter estimation for physical experimental teaching.
- The software will be employed in experimental teaching for junior students major in astronomy at USTC from 2021.

Classical Mechanics and Electrodynamics **2020 Fall @USTC**
Teaching assistant

HONORS & AWARDS

- Honorary Undergraduate (top $\sim 5\%$), USTC, 2021
- Outstanding Talk (Silver), USTC Talent Program Academic Seminar, 2021
- National Scholarship (top $\sim 2\%$), Ministry of Education of the PRC, 2020
- National Astronomical Observatory Scholarship (top $\sim 5\%$), National Astronomical Observatories of the Chinese Academy of Sciences, 2020
- Outstanding Student Scholarship, USTC, 2019
- Outstanding Undergraduate Research Program, USTC, 2019
- CGN Scholarship (Gold), USTC, 2019
- Outstanding Student Scholarship, USTC, 2018

PROFESSIONAL SKILLS

- **Skilled in:** Python, C, Matlab, Mathematica, LaTeX.
- **GW-relevant packages:** Bilby, PyCBC, GWPy.