

# Qian Hu

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🌐 <http://marinerq.github.io>

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## EDUCATION

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### University of Glasgow

Start from Oct. 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

## RESEARCH INTERESTS

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- **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

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1. **Qian Hu**, Cong Zhou, Jhao-Hong Peng, Linqing Wen, Qi Chu, Manoj Kovalam, *Semianalytical Approach for Sky Localization of Gravitational Waves*. Phys. Rev. D 104, 104008 (2021).
2. **Qian Hu**, Mingzheng Li, Rui Niu, and Wen Zhao. *Joint Observations of Space-based Gravitational-wave Detectors: Source Localization and Implication for Parity-violating Gravity*, Phys. Rev. D 103, 064057 (2021).
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

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### 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

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- 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

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- **Skilled in:** Python, C, Matlab, Mathematica,  $\text{\LaTeX}$ .
- **GW-relevant packages:** Bilby, PyCBC, GWPy.