Hanyue Guo

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EDUCATION

Beijing Institute of Technology Beijing, China
Master of Physics 09/2020 - 06/2023
Thesis: *Classification of fast radio bursts and their cosmological applications*

Nanjing University of Information Science and Technology Nanjing, China
Bachelor of Physics 09/2014 - 06/2018
Thesis: *Error estimation of the higher order moments of the net proton number in RHIC*

PUBLICATIONS

Han-Yue Guo and Hao Wei, *Fast radio bursts as standard candles for cosmology*, **Physics Letters B, Volume 859, 2024, 139120, ISSN 0370-2693**, https://doi.org/10.1016/j.physletb.2024.139120
Abstract: We constrained cosmological models using MCMC methods based on an empirical relation for a subclass of fast radio bursts.

Han-Yue Guo and Hao Wei, *A possible subclassification of fast radio bursts*, **JCAP 07 (2022) 010**, https://doi.org/10.1088/1475-7516/2022/07/010
Abstract: We compared the FRB observations with FRB simulations generated following the Star Formation History (SFH), and used this as a basis to classify the FRBs and analyze possible progenitor models for each class.

PROFESSIONAL PRESENTATIONS

"Make sense" postgraduate academic forum, contributed talk: *"A possible subclassification of fast radio bursts."* October 2022, Beijing, China.

GRANTS

National Scholarship (€2600, the highest scholarship awarded to the top 1% of students from the Chinese Ministry of Education) 2022

First-class academic scholarship (€780) 2022

First-class academic scholarship (€780) 2020

RESEARCH INTERESTS

Cosmology, High-energy Astrophysics, Galaxy Survey, Deep Learning

RESEARCH EXPERIENCE

Cosmology Research Group Beijing Institute of Technology

Master Student 09/2020-06/2023

Using numerical analysis to study the population and properties of fast radio bursts, and applying fast radio bursts to cosmological research through MCMC methods.

TEACHING ASSISTANT

Beijing Institute of Technology

Physics Department Beijing

University Physics Spring, 2022

SUMMER SCHOOL AND TRAINING SCHOOL

Chinese Survey Space Telescope(CSST) Summer School 2022, Peking University

Astronomical data and Python Training School 2020, The National Astronomical Observatories of the Chinese Academy of Sciences(NAOC)

CONFERENCE

Fast Radio Bursts Conference 05/2023, Hefei, China

Annual Conference of Division of Gravitational and Relativistic Astrophysics, Chinese Physical Society 04/2023, Chongqing, China

Gravitational Lensing Symposium 2023 03/2023, Beijing, China

Annual Conference of Division of Gravitational and Relativistic Astrophysics, Chinese Physical Society 04/2021, Shenyang, China

TECHNICAL

Programming
Python, Linux, LaTeX

Analysis Tools
MCMC packages: emcee, CosmoMC and Cobaya
Deep Learning packages: Pytorch

Languages
Chinese: native
English: good (IELTS in preparation)

Database Management
MS Excel, SQL