Yinan Zhao

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Education

University of Florida
M.S in Astronomy, 2016

Hebei Normal University
B.S in Applied Physics, 2014

Research Interests

Quasar absorption line systems. Machine learning. Exoplanet detection. GPU computing. Gamma-ray burst. Interstellar and intergalactic medium. Telescope automation. Galaxy evolution and formation. Spectrograph design.

Publications

- **Zhao, Y.**; Ge, J.; Yuan, X., Zhao, T.; Wang, C.; Li, X. 2019,
Identifying MgII narrow absorption lines with Deep Learning, Monthly Notices of the Royal Astronomical Society. 487, 801

- Zhu, B.; **Zhao, Y.**; Ge, J.; Ma, J. 2018,
Studying quasar absorber host galaxy properties using image stacking technique, Monthly Notices of the Royal Astronomical Society, 481,1469.

- Zhang, B.-B.; Zhang, B.; Sun, H.; Lei, W.-H.; Gao, H.; Li, Y.; Shao, L.; **Zhao, Y.**; Hu, Y.-D.; Lü, H.-J.; Wu, X.-F.; Fan, X.-L.; Wang, G.; Castro-Tirado, A. J.; Zhang, S.; Yu, B.-Y.; Cao, Y.-Y.; Liang, E.-W. 2018,
A peculiar low-luminosity short gamma-ray burst from a double neutron star merger progenitor, Nature Communications, 9, 447.

- Ma, J.; Ge, J.; Prochaska, J.; Zhang, S.; Ji, T.; **Zhao, Y.**; Zhou, H.; Lu, H.; Schneider, D. 2018,
Quasar 2175 Å dust absorbers - II. Correlation analysis and relationship with other absorption line systems, Monthly Notices of the Royal Astronomical Society. 474, 4870.

- Ma, Ji.; Ge, J.; **Zhao, Y**.; Prochaska, J.; Zhang, S.; Ji, T.; Schneider, D. 2017,
Quasar 2175 Å dust absorbers - I. Metallicity, depletion pattern and kinematics, Monthly Notices of the Royal Astronomical Society. 472, 2196.

- Yuan, X.; Li, M.; Gaddam, S.; Li, X.; **Zhao, Y.**; Ma, J.; Ge, J. 2016,

DeepSky: Identifying Absorption Bumps via Deep Learning, IEEE International Congress on Big Data, 214

- Wang, Y.-Z; **Zhao, Y.**; Shao, L.; Liang, E.-W.; Lu, Z.-J. 2016, *On the Late-time Spectral Softening Found in X-Ray Afterglows of Gamma-Ray Bursts,* The Astrophysical Journal, 818,167.

- **Zhao, Y.**; Shao, L. 2014, *Spectral Softening in the X-Ray Afterglow of GRB 130925A as Predicted by the Dust Scattering Model,* The Astrophysical Journal. 789, 74.

Honors and Awards

Grinter Fellowship, University of Florida 2014 - 2017
UF Informatics Institute Fellowship, University of Florida 2019

Teaching & Advising

- **Advisor** to Bill Zhu (2017, rising senior, Regeneron Science Talent Search Scholar)
Tittle: *Studying quasar absorber host galaxy properties using image stacking technique.* published in Monthly Notices of the Royal Astronomical Society, 481,1469.

- **Advisor** to Raymond Li (2017, rising junior, Siemens Competition Semi-finalist),
Jerry Xu (2017, rising senior, Siemens Competition Semi-finalist),
Sara Qu (2017, rising senior, Siemens Competition Semi-finalist)
Tittle: *Detecting Quasar 2175 Å dust absorbers with deep learning.*

- **Advisor** to Philip Pan (2017, rising sophomore, Siemens Competition Semi-finalist),
Anna Huang (2017, rising junior, Siemens Competition Semi-finalist),
Brandon Lo (2017, rising senior, Siemens Competition Semi-finalist)
Tittle: *Investigating Properties of the Gas and Dust Content in Rare Quasar 2175 Å Dust Absorber Systems in the Early Universe.*

Scientific Conference

- 231st American Astronomical Society Meeting, Washington DC January 11, 2018.
Tittle: First Time Rapid and Accurate Detection of Massive Number of Metal Absorption Lines in the Early Universe Using Deep Neural Network

- 7th Galaxies in Absorption, University of Pittsburgh, Pittsburgh, PA April 25-27, 2016.
Tittle: A Large Homogeneous Sample of 2175 Å Dust Absorbers - Sample Selection and Statistical Results

- 227th American Astronomical Society Meeting, Kissimmee, FL January 4, 2016
Tittle: The Quasar 2175 Å Dust Absorbers in the Sloan Digital Sky Survey Data Release Twelve

Computer skills

Proficient in Python, IDL, Mathematica, C/C++; familiar with R, MATLAB.