

Zhiyuan Yao

Curriculum Vitae

Contact Information

Max Planck Institute for Astrophysics
Karl-Schwarzschild-Str. 1
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Education

Visiting Ph.D student in Max Planck Institute for Astrophysics

05/2021 - 01/2022

Advisor: Volker Springel

Ph.D in progress, Astronomy, Shanghai Astronomical Observatory, Chinese Academy of Sciences

09/2016 - 05/2022 (Expected)

Advisor: Feng Yuan

Bachelor, Astronomy, University of Science and Technology of China

09/2012 - 06/2016

Research Experience

Cloud acceleration in a hot wind, 2021-present

Study the cloud acceleration process with thermal conduction and cooling, and the gas condensation in the mixing layer

code: AREPO

AGN feedback in early-type galaxies, 2018-2020

Apply small-scale results to a new AGN feedback model, and study its effect in an isolated early-type galaxy with two-dimensional hydrodynamic simulations

code: ZEUS-MP

Hot gas flows around the Bondi radius, 2017-2018

performed two-dimensional hydrodynamic simulations to study the accretion processes around the Bondi radius of NGC 3115

code: ZEUS-MP

Honors & Awards

2021, Visiting Germany funded by China Scholarship Council

2020, Academic Scholarship of University of Chinese Academy of Sciences

2017, Merit student of University of Chinese Academy of Sciences

Publications

Guang Yang et al. (inc. **Z.Yao**), “Do current X-ray observations capture most of the black-hole accretion at high redshifts?”, 2021 (arXiv:2109.00078)

Zhiyuan Yao, Feng Yuan, Jeremiah P. Ostriker, “Active galactic nucleus feedback in an elliptical galaxy with the most updated AGN physics: Parameter explorations”, MNRAS, 501, 398, 2021

Zhiyuan Yao & Zhaoming Gan, “Hot gas flows on a parsec scale in the low-luminosity active galactic nucleus NGC 3115”, MNRAS, 492, 444, 2020

Talks 07/2021, Ringberg Retreat, Munich, Germany
10/2020, Galaxy and Cosmology workshop, Shanghai, China
05/2019, the 21st Guoshoujing workshop, Xiamen, China
11/2018, The Co-Evolution of Galaxies and Their Central Regions, Dali, China
10/2018, Annual meeting of the Chinese Astronomical Society, Kunming, China

Skills Python, C, C++, Fortran, MPI, LaTeX, Linux, ZEUS, AREPO, ATHENA++

Extracurricular Activities 2018, Captain of the football team in the institute
2017, Guitar show at the Arts Festival on campus
2017, Volunteer of the Great Wall of China marathon
2016, English speech contest on campus
2016, Runner-up in the amateur Thai boxing match

References **Feng Yuan**
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Volker Springel
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