

Yuxiang Qin

Curriculum vitae

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Profile Summary

I take pride in my ability to quickly master physics concepts and mathematical techniques. Through carefully directing my studies I possess a broad, yet deep, background in theoretical and numerical approaches required to model and understand galaxy formation and Reionization. I enjoy researching both independently as well as in an international team and have enjoyed supervising other students throughout my earlier research career.

Education

Ph.D. Astrophysics, *University of Melbourne (UniMelb)*, Australia.
Supervisor: Professor J. Stuart B. Wyithe from UniMelb.
(Expected Apr. 2018)

B.S. Astronomy, *University of Science and Technology of China (USTC)*, China.
Supervisor: Professor Jifeng Liu from The National Astronomical Observatories, Chinese Academy of Sciences (NAOC).
(Major GPA: 90.75/100)

Awards/Computer Grants

Jean Laby Ph.D. Travelling Scholarship, AUD 5,000, UniMelb.

Science Abroad Travelling Scholarship, AUD 1,500, UniMelb.

Supercomputing Time, 500k CPU hours, The Pawsey Supercomputing Centre.

Goldsworthy Scholarship, AUD 30,000 p.a., UniMelb.

Melbourne International Research Scholarship, AUD 25,392 p.a., UniMelb.

Melbourne International Fee Remission Scholarship, AUD 32,224 p.a., UniMelb.

Certificate of Scholarship, CNY 3,000, NAOC.

Certificate of Honor, Wang Shouguan Talent Program in Astronomy, USTC.

National Endeavor Fellowship, CNY 5,000, USTC.

Aegon-Industrial Responsibility Scholarship, CNY 4,000, USTC.

2013.8

Certification of Excellence, University of Western Australia (UWA).

2012.10

Outstanding Student Scholarship, CNY 2,000, USTC.

2011.10

Outstanding Student Scholarship, CNY 500, USTC.

2010.10

Outstanding Freshmen Scholarship, CNY 500, USTC.

Published Articles

- Y. Qin, S.J. Mutch, A.R. Duffy, P.M. Geil, G.B. Poole, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-XIII. AGN quenching of high-redshift star formation in ZF-COSMOS-20115*. MNRAS (2017) 471 (4): 4345–4354.
- *Y. Qin, S.J. Mutch, G.B. Poole, C. Liu, A.R. Duffy, P.M. Geil, P.W. Angel, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-X. The small contribution of quasars to reionization*. MNRAS (2017) 472 (2): 2009–2027.
- *Y. Qin, A.R. Duffy, S.J. Mutch, G.B. Poole, P.W. Angel, P.M. Geil, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-VIII. Suppressed growth of dark matter haloes during the Epoch of Reionization*. MNRAS (2017) 467 (2): 1678–1693.
- J. Guo, J. Liu, S. Wang, Y. Wu, and Y. Qin. *An active M star with X-ray double flares disguised as an ultra-luminous X-ray source*. Research in Astronomy and Astrophysics (2016) 16 (2): 034.

In Preparation

- Y. Qin, A.R. Duffy, S.J. Mutch, G.B. Poole, P.M. Geil, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-XV. Gas cooling in simulations of dwarf galaxies at high redshift*. Internal review.
- Y. Qin, A.R. Duffy, S.J. Mutch, G.B. Poole, P.M. Geil, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-XVI. Supernova feedback in simulations of dwarf galaxies at high redshift*. In preparation.
- Y. Qiu, S.J. Mutch, Y. Qin, A.R. Duffy, P.M. Geil, P.A. Oesch, A. Mesinger and J.S.B. Wyithe. *Dark-ages reionization and galaxy formation simulation-XIV. Clustering segregation with stellar mass and luminosity at $z\sim 4$* . In preparation.
- Y. Bai, J. Liu, S. Wang, J. Guo, Y. Qin and L. He. *The UV Emission of Stars in LAMOST Survey*. Internal review.

Presentations

2017.09

AGN quenching of high redshift star formation in ZF-COSMOS-20115, ACAMAR 3: Australia-China Workshop on Astrophysics, Hobart, Australia.

2017.08

Quasars and cosmic reionization, *From Black Hole to Environment: Galaxy Evolution across Multiple Wavelengths*, The Australian National University (ANU), Australia.

- 2017.07 **AGN quenching of high redshift star formation in *ZF-COSMOS-20115***, *The 24th Astronomical Society of Australia (ASA) Annual Scientific Meeting*, ANU, Australia.
- 2017.02 **The small contribution of quasars to reionization**, *The 11th Australian National Institute for Theoretical Astrophysics (ANITA) Workshop*, The University of Tasmania, Australia.
- 2016.10 **Dark-ages Reionization And Galaxy Observables from Numerical Simulations**, *Cosmology Seminar*, The Max-Planck-Institute for Astrophysics (MPA), Germany.
- 2016.02 **Suppressed Growth of Dark Matter Halos during the Epoch of Reionization**, *The 10th ANITA Workshop*, Monash University, Australia.
- 2015.07 **Comparison between Hydrodynamic Simulations and Semi-Analytic Models (poster)**, *The 22nd ASA Annual Scientific Meeting*, Perth, Australia.
- 2014.08 **UV Radiation from Stars**, *Invited Seminar*, Xiamen University, China.

Academic Visits

- 2016.10 **Guest Scientist**, MPA.
- 2016.11
- 2014.02 **Research Visiting Student**, NAOC.
- 2014.08
- 2013.07 **Research Visiting Student**, *International Centre for Radio Astronomy Research*, UWA.
- 2013.08
- 2012.06 **Research Visiting Student**, NAOC.
- 2012.09

Experiences

- 2017.08 **Outreach Volunteer**, *University Open Day*, UniMelb.
- 2017.08 **Lab Demonstrator**, *From the Solar System to the Universe*, UniMelb.
- 2017.10
- 2017.03 **Lab Demonstrator**, *1st Year Physics Undergraduate Program - Fundamental*, UniMelb.
- 2017.05
- 2016.03 **Lab Demonstrator**, *1st Year Physics Undergraduate Program - Advanced*, UniMelb.
- 2016.05
- 2016.02 **Coordinator**, *Astro Group Meeting*, UniMelb.
- 2017.03
- 2015.11 **Coordinator**, *Simulation Group Lunch Meeting*, UniMelb.
- 2017.02
- 2015.08 **Lab Demonstrator**, *1st Year Physics Undergraduate Program for Biomedicine*, UniMelb.
- 2015.10
- 2015.03 **Lab Demonstrator**, *1st Year Physics Undergraduate Program - Standard*, UniMelb.
- 2015.05
- 2014.02 **Teaching Assistant**, *Introduction to Astromechanics and Astrometry*, USTC, 3 credits.
- 2014.07

Skills

- Programming: multi-threaded high-performance computing involving big dataset on large distributed platforms; high-skilled in C, python, git, bash, sql, etc; major contributor to *Meraxes*, a private C code of semi-analytic galaxy formation model on bitbucket (soon to be publicly released as an open source package).
- Language: Chinese (native), English (fluent).

References

Prof. J. Stuart B. Wyithe

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A/Prof. Alan R. Duffy

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