

Yang Huang

Curriculum Vitae

PERSONAL DETAILS

Birth Date May 29, 1989
Birth Place Wuwei, Anhui, China
Address 20A Datun Road, Chaoyang District, Beijing, 100101, China
Mobilephone (+86) 18611557045
Emails huangyang@ucas.ac.cn; huangyang@bao.ac.cn

EDUCATION

Ph.D. in Astrophysics 2011-2016
Peking University, China

B.S. in Applied Physics 2007-2011
Anhui University, China

B.A. in English 2009-2011
Anhui University, China

EMPLOYMENT

Associate Professor 2023-present
School of Astronomy and Space Science, University of the Chinese Academy of Sciences, China

Visiting Scholar 2022-2023
National Astronomical Observatories, Chinese Academy of Sciences, China

Associate Director 2020-2022
SWIFAR, Yunnan University, China

Associate Professor 2018-2022
SWIFAR, Yunnan University, China

Postdoctoral Researcher & LAMOST Fellow 2016-2018
Peking University, China
The LAMOST FELLOWSHIP is supported by Special fund for Advanced Users, budgeted and administrated by Center for Astronomical Mega-Science, Chinese Academy of Sciences (CAMS).

RESEARCH INTERESTS

- Large-scale spectroscopic & photometric surveys
- Galactic dynamics and Galactic archaeology
- Stellar astrophysics
- Compact objects and related physics
- Active galactic nucleus (AGN) & merging galaxies

SELECTED AWARDS & HONORS

2022	Outstanding Reviewer for RAA in 2021
2020	International Astronomical Union Junior Member
2019	Chinese Astronomical Society Member
2019	Young Talents of the “Thousand Talents Project” of Yunnan Province
2017	International Astronomical Union PhD Prize
2012-2016	Presidential Fellowship, Peking University (RMB: 51,000 yuan/year)
2014-2015	National Scholarship for Ph.D. Student (Chinese top scholarship)
2013-2014	Leo KoGuan Scholarship, Peking University
2013	Top 10 progress of Chinese astronomy 2012, co-I

GRANTS

2021-2022	Cultivation Project for LAMOST Scientific Payoff and Research Achievement of CAMS-CAS, 93k RMB
2020-2022	Natural Science Foundation of China Youth Fund, 300k RMB
2019-2024	National Key R&D Program of China, core member
2019-2023	Natural Science Foundation of China Key Program, core member
2019-2020	Cultivation Project for LAMOST Scientific Payoff and Research Achievement of CAMS-CAS, 50k RMB
2018-2022	Yunnan University Grant, 1.5M RMB
2017-2019	General Program, China Postdoctoral Science Foundation, 50k RMB
2016-2019	LAMOST Fellowship, Chinese Academy of Sciences, 150k RMB

SERVICE

2020-	Referee for RAA, AAS and A&A journals
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VISITING EXPERIENCE

- Peking University, 2022.07.01-2022.07.16, hosted by Prof. Huawei Zhang
- NAOC, 2022.06.21-2022.06.30, hosted by Prof. Jifeng Liu
- Peking University, 2021.10.19-2021.10.22, hosted by Prof. Subo Dong
- Xiamen University, 2021.05.12-2021.05.14, hosted by Prof. Weimin Gu

- Korea Astronomy and Space Science Institute, 2019.10.30-2019.11.01, hosted by Prof. Chung-uk Lee
- Oxford University, 2019.07.25-2019.08.10, hosted by Prof. James Binney
- Anhui University, 2018.11.16-2018.11.17, hosted by Prof. Liang Lv and Prof. Gang Li
- Beijing Normal University, 2018.11.11-2018.11.15, hosted by Dr. Haibo Yuan
- Macquarie University, 2018.03.23-2018.03.30, Visiting Scholar, hosted by Dr. Chengyuan Li
- China Three Gorges University, 2018.01.14-2018.01.16, hosted by Dr. Gaochao Liu
- Max Planck Max Planck Institute of Solar Research, 2017.10.01-2017.10.07, hosted by Dr. Saskia Hekker & Alexey Mints
- Oxford University, 2017.09.01-2017.09.30, hosted by Prof. James Binney
- Hebei Normal University, 2017.03.09-2017.03.10, hosted by Dr. Minzhi Kong & Prof. Ji Li

COLLABORATION

- Southern Photometric Local Universe Survey (SPLUS): External member (2020–)
- Javalambre Physics of the Accelerating Universe Astrophysical Survey (J-PAS): Member (2019–)

PUBLICATIONS

First-author OR corresponding-author (with *) papers: (See my all publications in: [My ADS Library](#), H-index = 29)

39. Kai Xiao, **Yang Huang***, Haibo Yuan* et al., *S-PLUS: Photometric Re-calibration with the Stellar Color Regression Method and an Improved Gaia XP Synthetic Photometry Method*, submitted to ApJS, arXiv:2309.11533
38. Qingzheng Li, **Yang Huang***, Xiaobo Dong, *An update of the catalog of radial velocity standard stars from the APOGEE DR17*, arXiv:2307.05291, accepted by RAA
37. **Yang Huang** et al., *Beyond spectroscopy. II. Stellar parameters for over twenty million stars in the northern sky from SAGES DR1 and Gaia DR3*, arXiv: 2307.04469, accepted by ApJ
36. Shan Zhang, Gaochao Liu*, **Yang Huang*** et al., *Probing the Galactic halo with RR Lyrae stars - IV. On the Oosterhoff dichotomy of RR Lyrae stars*, MNRAS, 525, 5915, 2023
35. Qing-zhen Li, **Yang Huang***, Xiao-bo Dong* et al., *On the Origins of Extreme Velocity Stars as Revealed by Large-scale Galactic Surveys*, AJ, 166, 12, 2023
34. Chun Wang*, **Yang Huang***, Yutao Zhou, Huawei Zhang, *Precise Masses, Ages of 1.0 million RGB and RC stars observed by the LAMOST*, A&A, 675, 26, 2023

33. Yuan Zhou, Xinyi Li, **Yang Huang***, Huawei Zhang, *The Circular Velocity Curve of the Milky Way from 5 to 25 kpc using luminous red giant branch star*, ApJ, 946, 73, 2023
32. Xinyi Li, **Yang Huang*** et al., *Photometric metallicity and distance estimates for sim 136,000 RR Lyrae stars from Gaia DR3*, ApJ, 944, 88, 2023
31. Gaochao Liu, **Yang Huang***, Sarah Ann Bird et al., *Probing the Galactic halo with RR Lyrae stars III. The chemical and kinematic properties of the stellar halo*, MNRAS, 517, 2787, 2022
30. Chun Wang*, **Yang Huang***, Haibo Yuan, Huawei Zhang, Maosheng Xiang, Xiaowei Liu*, *The value-added catalogue for LAMOST DR8 low-resolution spectra*, ApJS, 259, 51, 2022
29. **Yang Huang**, Beers Timothy, C. Wolf Christian et al., *Beyond spectroscopy. I. Metallicities, distances, and age estimates for over twenty million stars from SMSS DR2 and Gaia EDR3*, ApJ, 925, 164, 2022
28. Yong Yang, Chengyuan Li*, **Yang Huang***, Xiaowei Liu*, *At what mass are stars braked? The implication from the turnoff morphology of NGC 6819*, ApJ, 925, 159, 2022
27. **Yang Huang** et al., *Erratum "Milky Way Tomography with the SkyMapper Southern Survey. II. Photometric Recalibration of SMSS DR2" (2021, ApJ, 907, 68)*, ApJ, 924, 141, 2022
26. Yangwei Zhang, **Yang Huang***, Jinming Bai* et al., *A Systematic search for Dual AGNs in merging Galaxies (ASTRO-DARING) III: results from the SDSS spectroscopic surveys*, AJ, 162, 276, 2021
25. Yangwei Zhang, **Yang Huang***, Jinming Bai* et al., *A Systematic search for Dual AGNs in merging Galaxies (ASTRO-DARING) II: first results from long-slit spectroscopic observations*, AJ, 162, 289, 2021
24. F. Wang, H.-W. Zhang*, **Y. Huang*** et al., *Local stellar kinematics and oort constants from the LAMOST A-type stars*, MNRAS, 504, 199, 2021
23. **Y. Huang** et al., *The Parallax Zero-Point of Gaia Early Data Release 3 from LAMOST Primary Red Clump Stars*, ApJL, 910, 5, 2021
22. **Y. Huang** et al., *Discovery of A candidate Hypervelocity star originated from the Sagittarius Dwarf Spheroidal galaxy*, ApJL, 907, 42, 2021
21. **Y. Huang** et al., *Milky Way Tomography with the SkyMapper Southern Survey. II. Photometric Re-calibration of SMSS DR2*, ApJ, 907, 68, 2021
20. H.-F. Wang*, **Y. Huang*** et al., *Diagonal Ridge pattern of different age populations found in Gaia DR2 with LAMOST Main-Sequence-Turn-Off and OB type Stars*, ApJ, 902, 70, 2020
19. W.-X. Sun, **Y. Huang*** et al., *Mapping the Galactic disk with the LAMOST and Gaia Red clump sample: V: On the origin of the "young" $[\alpha/Fe]$ -enhanced stars*, ApJ, 903, 12, 2020
18. X.-Y. Li, **Y. Huang*** et al., *Mapping the Galactic disk with the LAMOST and Gaia Red clump sample: IV: The Kinematic Signature of the Galactic Warp*, ApJ, 901, 56, 2020

17. **Y. Huang** et al., *Mapping the Galactic disk with the LAMOST and Gaia Red clump sample: I: precise distances, masses, ages and 3D velocities of ~ 140000 red clump stars*, ApJS, 249, 29, 2020
16. G.C. Liu, **Y. Huang*** et al., *Probing the galactic halo with RR Lyrae stars I: The catalog*, ApJS, 247, 68, 2020
15. Haifeng Wang*, Jeffrey L. Carlin, **Y. Huang*** et al., *Mapping the Galactic Disk with the LAMOST and Gaia Red Clump Sample. III. A New Velocity Substructure and Time Stamps of the Galactic Disk Asymmetry in the Disk between 12 and 15 kpc*, ApJ, 884, 135, 2019
14. **Y. Huang** et al., *A New Luminous blue variable in the outskirts of the Andromeda Galaxy*, ApJL, 884, 7, 2019
13. **Y. Huang** et al., *Milky Way tomography with the SkyMapper Southern Survey: I: Atmospheric parameters and distances of one million red giants*, ApJS, 243, 7, 2019
12. **Y. Huang** et al., *Member stars of the GD1 tidal stream from the SDSS, LAMOST and Gaia surveys*, ApJ, 877, 13, 2019
11. **Y. Huang** et al., *On the kinematic signature of the Galactic warp as revealed by the LAMOST-TGAS data*, ApJ, 864, 129, 2018
10. **Y. Huang** et al., *A new catalogue of radial velocity standard stars from the APOGEE data*, AJ, 156, 90, 2018
9. **Y. Huang** et al., *The Galactic mass distribution from the LAMOST Galactic spectroscopic surveys*, IAU Symposium, 330, 220, 2018
8. **Y. Huang** et al., *Discovery of Two New Hypervelocity Stars from the LAMOST Spectroscopic Surveys*, ApJL, 847, 9, 2017
7. **Y. Huang** et al., *The Milky Way's rotation curve out to 100 kpc and its constraint on the Galactic mass distribution*, MNRAS, 463, 2623, 2016
6. Y.-W. Zhang, **Y. Huang*** et al., *Kinematic properties of the dual AGN system J0038+4128 based on long-slit spectroscopy*, RAA, 16, 5, 2016
5. **Y. Huang** et al., *Empirical Metallicity-dependent Calibrations of Effective Temperature against Colors for Dwarfs and Giants Based on Interferometric Data*, MNRAS, 454, 2863, 2015
4. N.-C. Sun, X.-W. Liu*, **Y. Huang*** et al., *Galactic Disk Bulk Motions as Revealed by the LSS-GAC DR2*, RAA, 15,1342, 2015
3. **Y. Huang** et al., *On the Metallicity Gradients of the Galactic Disk as Revealed by the LSS-GAC Red Clump Stars*, RAA, 15, 1240, 2015
2. **Y. Huang** et al., *Determination of the local standard of rest using the LSS-GAC DR1*, MNRAS, 449, 162, 2015

1. **Y. Huang** et al., *HST and LAMOST Discover a Dual Active Galactic Nucleus in J0038+4128*, MNRAS, 439, 2927, 2014

CONFERENCES & WORKSHOPS

32. ACAMAR Future of Traditional Survey Science, virtual workshop, 22-24 September, 2021
Invited talk: *Milky Way studies in the era of large-scale surveys (LAMOST)*
31. Calibration Workshop on the Space-based and Ground-based Optical-IR Telescopes, Shanghai, China, 24-26 March, 2021
Invited talk: *Multi-channel Photometric Survey Telescope - Mephisto And Calibration strategy*
30. The 4th TAP Workshop for Optical-Infrared Astronomy in China, Xiamen, China, 15-17, Dec, 2019
Contributed talk: *A systematic search for dual AGNs in merging galaxies (ASTRO-DARING)*
29. The Milky Way 2019: LAMOST and Other Leading Surveys, Yichang, China, 14-18, Oct., 2019
Invited talk: *Multi-channel Photometric Survey Telescope - Mephisto*
28. 2019 Advanced Telescope and Instrument Technology Conference, Gaoxiong, China, 2-5, Sep., 2019
Contributed talk: *Multi-channel Photometric Survey Telescope - Mephisto*
27. IAUS 353: Galactic dynamics in the era of large surveys, Shanghai, China, 30 June - 5 July, 2019
Invited talk: *Stellar kinematics and metallicities from LAMOST*
26. The 1st Donglu Astrophysics Forum, Kunming, China, 01-03 April, 2019
Galactic kinematics and dynamics from the LAMOST & Gaia Surveys
25. Galactic Archaeology in the Gaia era, Sexten, Italy, 28 Jan. - 01 Feb., 2019
The LAMOST Galactic Spectroscopic Surveys
24. The life and times of the Milky Way, Shanghai, China, 12-16, Nov., 2018
Invited talk: *The Galactic stellar halo in the era of large-scale surveys*
23. XXXth General Assembly of the International Astronomical Union, Vienna, Austria, 20-31, Aug., 2018
IAU PhD prize talk: *Galactic kinematics and dynamics from the LAMOST Galactic Spectroscopic Surveys*
Contributed talk at IAUS 348: *A Systematic Search for Hypervelocity Stars from the LAMOST Spectroscopic Survey*
22. ACAMAR 4: Australia-China Workshop on Astrophysics, Chengdu, China, 6-8 June, 2018
Invited talk: *Galactic kinematics and dynamics from the LAMOST Galactic Spectroscopic Survey*
21. Chemical and dynamical evolution of galaxies, Sexten, Italy, 21-26 Jan., 2018
Contributed talk: *Chemical and kinematical evolution of the Galactic disc(s) as revealed by the LAMOST-TGAS*

20. China-VO and Astroinformatics, Dali, Yunnan, China, Nov. 29 - Dec. 3, 2017
19. Open Skies from China to South Africa – Sharing Resources and Building Collaborations in Optical and Infrared Astronomy, Lijiang, Yunnan, China, Oct. 30 - Nov. 1, 2017
Contributed talk: *Chemodynamic Evolution of the Galactic Disc(s) as Revealed by the LAMOST-TGAS*
18. 2nd LAMOST-Kepler workshop, Brussels, Belgium, July 31 - August 3, 2017
Contributed talk: *Galactic kinematics and dynamics from the LAMOST Galactic Spectroscopic Surveys (presentation via Skype)*
17. 13th Asian-Pacific Regional IAU Meeting, Taipei, China, July 3-7, 2017
Contributed talk: *A Systematic Search for Dual AGNs in Merging Galaxies*
Contributed talk: *Understanding the formation and evolution of the Galactic disc(s) using Mono-Age Population Phase-spacE Distributions (MAPPED) analysis*
16. IAU symposium 330: Astrometry and Astrophysics in the Gaia Sky, Nice, France, April 24-28, 2017
Poster: *The mass distribution of the Milky Way*
15. 11th Zhangheng Academic Symposium, Guiyang, Guizhou, China, June 23-26, 2017
Contributed talk: *Estimating the mass of our Milky Way from the LAMOST Galactic spectroscopic survey*
14. Near-field cosmological structure formation, Zhuhai, Guangzhou, China, Dec. 19-23, 2016
Contributed talk: *Estimating the mass of our Milky Way from the LAMOST Galactic spectroscopic survey*
13. Galactic Archaeology & Stellar Physics, Canberra, Australia, November 21-25, 2016
Poster: *Dissecting the Galactic disc(s) in multi-dimensional age-metallicity-phase space using the LSS-GAC data*
12. Annual Conference of Chinese Astronomical Society, Wuhan, Hubei, China, Nov. 1-3, 2016
Contributed talk: *Toward a uniform calibration of the stellar atmospheric parameters on the era of large-scale Galactic spectroscopic survey*
11. The Milky Way and its environment: gaining insights into the drivers of galaxy formation and evolution, Institut d'Astrophysique de Paris in Paris, France, Sept. 19-23, 2016.
Contributed talk: *The Milky Way's rotation curve out to 100 kpc and its constraint on the Galactic mass distribution*
10. Workshop on Astronomical distance determination in the space age, Beijing, China, May 23-27, 2016
Invited talk: *Chemical and kinematic studies of the Milky Way based on the LAMOST spectroscopic survey of the Galactic anti-center (LSS-GAC) red clump sample*
9. LAMOST-TGAS mini-workshop, Beijing, China, Mar. 24-25, 2016
Contributed talk: *Velocity & metallicity distribution function of the solar neighborhood*
8. Annual Conference of Chinese Astronomical Society, Beijing, China, Oct. 19-21, 2015
Contributed talk: *The Milky Way's rotation curve out to 100 kpc using LSS-GAC and SDSS data*

7. LAMOST User Training Workshop, Huairou, Beijing, China, July 7-9, 2015
Invited talk: *Study kinematics and chemical evolution of Milky Way using LSS- GAC data*
6. The 2015 KIAA-SHAO Bilateral Workshop, Beijing, China, May 18-19, 2015
Contributed talk: *The Milky Way's rotation curve between 8 and 15 kpc from LSS-GAC red clump stars*
5. Sino-French "LIA-ORIGINS" Workshop, Beijing, China, Oct. 21-24, 2014
Contributed talk: *Determination of the Local Standard of Rest using the LSS-GAC DR1*
4. 12th Asia-Pacific Regional IAU Meeting, Daejeon, Korea, Aug. 18-22, 2014
Contributed talk: *Systematic search for kpc-scale dual AGN candidates*
Poster: *Determination of the Local Standard of Rest using the LSS-GAC data*
3. Chinese 2m-class optical telescope operation meeting, Kunming, China, Aug. 6-8, 2014
Contributed talk: *Follow-up observations of kpc-scale dual AGN candidates by 2.16 and 2.4 Meter Telescopes*
2. LAMOST User Training Workshop, Xinglong, Hubei, China, July 1-3, 2014
Invited talk: *Systematic search for kpc-scale dual AGN by LAMOST*
1. Annual Conference of Chinese Astronomical Society, Suzhou, Jiangsu, China, Oct. 27-31, 2013
Contributed talk: *The Local Standard of Rest determined by the LSS-GAC*

COLLOQUIA & SEMINARS

17. Beijing Planetarium, August, 28, 2023, *Probing the Galactic Halo with RR Lyrae Stars*
16. Qilu Normal University, June, 05, 2023, *Galactic archeology based on large-scale surveys*
15. NAOC, March, 03, 2023, *Measurements of stellar parameters from the large-scale surveys*
14. School of Physics and Electronics, Hunan Normal University, May, 24, 2022, *The mass distribution of our Galaxy from the large-scale surveys*
13. KIAA, Peking University, October, 21, 2021, *On the origins of Hypervelocity stars as revealed by large-scale Galactic surveys*
12. Department of Astronomy, Xiamen University, May, 13, 2021, *Galactic kinematics and dynamics from the LAMOST & Gaia Surveys*
11. School of Physics and Astronomy, Sun Yan-sen University, June, 17, 2019, *The LAMOST Galactic spectroscopic surveys*
10. School of Astronomy and Space Science, Nanjing University, CAS, May 8, 2019, *The LAMOST Galactic spectroscopic surveys*
9. Nanjing Institute of Astronomical Optics and Technology, National Astronomical Observatories, CAS, December 18, 2018, *Galactic kinematics and dynamics from the LAMOST Galactic Spectroscopic Surveys*
8. School of Physics and Materials Science, Anhui University, December 16, 2018, *The LAMOST Galactic spectroscopic surveys*

7. Department of Astronomy, Beijing Normal University, December 11, 2018, *Galactic kinematics and dynamics from the LAMOST Galactic Spectroscopic Surveys*
6. Research Centre for Astronomy, Astrophysics and Astrophotonics, Macquarie University, March 29, 2018, *The LAMOST Galactic spectroscopic surveys*
5. Research School of Astronomy & Astrophysics, ANU, March 19, 2018, *The LAMOST Galactic spectroscopic surveys*
4. Cambridge University, Sept. 27, 2017, *Chemical and kinematical studies of the Milky Way based on the LAMOST Galactic Spectroscopic Surveys*
3. Yunnan University, Sept. 13, 2016, *Chemical and kinematical studies of the Milky Way based on the LAMOST spectroscopic survey of the Galactic anti-center (LSS-GAC)*
2. Shanghai Astronomical Observatory, CAS, July 1, 2015, *Study local velocity fields and determine rotation curve of the Milky Way using LSS-GAC data*
1. Peking University, Oct. 22, 2013, *The local standard of rest and radial velocity bifurcation features at the Galactic disk from the LSS-GAC*

OBSEVATIONAL EXPERIENCE

- one night with CFHT telescope at CFH observatory (remote), Hawaii, USA
- 5 nights with Hale 5.1-m Telescope at Palomar Observatory (remote), California, USA
- Over 10 nights with LAMOST at Xinglong Observatory, Hebei, China
- Over 20 nights with the 2.16-m Telescope at Xinglong Observatory, Hebei, China
- Over 80 nights with the 2.4-m Telescope at Gaomeigu Observatory, Yunnan, China

SUPERVISION

- Yangwei Zhang (obtained PhD 2021 at YNAO, co-supervised with Prof. Jinming Bai; now a postdoc at Yunnan University)
- Qingzheng Li (third-year PhD student at YNAO, co-supervised with Prof. Xiaobo Dong)
- Xinyi Li (third-year PhD student at Yunnan University, co-supervised with Prof. Xiaowei Liu)
- Weixiang Sun (third-year PhD student at Yunnan University, co-supervised with Prof. Xiaowei Liu)
- Tao Wang (second-year PhD student at Yunnan University, co-supervised with Prof. Xiaowei Liu)
- Yuan Zhou (obtained master degree 2022 at Yunnan University, co-supervised with Prof. Xiaowei Liu)
- Ruifeng Shi (second-year master student at Yunnan University)

TEACHING EXPERIENCE

- 2019-2021: **A guide to reading research papers** at Yunnan University
- 2018-2021: **An introduction to Astronomy** at Yunnan University
- 2014: Lecturer and Mentor of the Third Observational Astronomy Workshop of Xinglong Station
- Teaching assistant at Peking University:
Interstellar Medium: Spring/2014 (recitation)
Cosmology: Spring/2014 (recitation)