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EDUCATION AND JOB:

- May 2022 - Now: Assistant researcher,
NAOC, Beijing, China. *Collaborator:* Prof. Ran Li
- May 2019 - Apr 2022: Post-doc
Kavli Institute for Astronomy and Astrophysics (KIAA), Peking University,
Beijing, China. *Collaborated advisor:* Prof. Linhua Jiang
- Jul. 2016 - Nov. 2018: visiting PhD student,
the Argelander-Institut für Astronomie (AIfA), University of Bonn,
Bonn, Germany. *Supervisor:* Prof. Thomas Reiprich
- Sep. 2014 - Jan. 2019: PhD in astrophysics,
NAOC, Beijing, China. *Supervisor:* Prof. Lijun Gou
- Sep. 2011 - Jun. 2014: Master in Astrophysics,
NAOC, Beijing, China. *Supervisor:* Prof. Jinlin Han
- Sep. 2007 - Jun. 2011: Bachelor in applied physics,
Shandong University, Weihai, China

RESEARCH INTEREST:

- galaxy, galaxy clusters and cosmology, weak lensing, optical observation, X-ray astronomy

ACADEMIC SERVICE:

- Reviewed for Journal: Astronomy & Astrophysics (A&A)
- Reviewed for Chandra observation proposal

RESEARCH FUNDING:

- NSFC young scientist program, 300k RMB, PI, 2022-2025, “the identification of very extended galaxy clusters with XMM-COSMOS and CDF-S data”
- NSFC general program, 600k RMB, PI, *submitted at 2025*, “the identification and systematic research of X-ray extended galaxy clusters”

ACADEMIC PUBLICATION:

- **As of Mar. 2025, 13 published papers in total, 146 citations.**

7 first-author published papers; 6 co-authored published papers;
1 corresponding-author paper & 1 co-authored paper *under review*;
2 first-author papers & 2 co-authored paper *in preparation*.

- **Published papers as first author:**

1. XMM-SERVS X-ray eXtended Galaxy Cluster (XVXGC) catalog (Xu, W., Jiang L., et al., 2024, *a&a*, 691, A300)
2. The Measurement of the Splash-back Radius of Dark Matter Halos (Xu, W., Shan, H., et al. 2024, *apj*, 971, 157)
3. Catalog of X-ray-selected extended galaxy clusters from the ROSAT All-Sky Survey (RXGCC) (Xu, W., et al., 2022, *a&a*, 658, A59)
4. Halo Mass-Concentration Relation at High-Mass End (Xu, W., et al. 2021, *apj*, 922, 162)

5. A New X-ray Selected Sample of Very Extended Galaxy Groups from the ROSAT All-Sky Survey (**Xu, W.**, Ramos-Ceja, M. E., et al. 2018, *a&a*, a162, 17)
6. X-ray fluorescent lines from the Compton-thick AGN in M51 (**Xu, W.**, Liu, Z., et al. 2016, *mnras*, 455, L26)
7. An efficient method to identify galaxy clusters by using SuperCOSMOS, 2MASS and WISE data (**Xu, W.**, Wen, Z., et al. 2014, *Science China Physics, Mechanics, and Astronomy*, 57, 2168)

• **Published papers as co-author:**

- A. Assessing mass-loss and stellar-to-halo mass ratio of satellite galaxies: a galaxy-galaxy lensing approach utilizing DECaLS DR8 data (Wang C., Li R., Shan H., **Xu W.**, Yao J., Jing Y., Gao L., et al., 2024, *mnras*, 528, 2728)
- B. MaNGA DynPop - IV. Stacked total density profile of galaxy groups and clusters from combining dynamical models of integral-field stellar kinematics and galaxy-galaxy lensing (Wang C., Li R., Zhu K., Shan H., **Xu W.**, Cappellari M., Gao L., et al., 2024, *mnras*, 527, 1580)
- C. Spectroscopic Confirmation of Two X-Ray Diffuse and Massive Galaxy Clusters at Low Redshift (Chen, K., **Xu, W.**, & Jiang, L. 2022, *apj*, 940, 79)
- D. Ram Pressure Stripping of HI-rich Galaxies Infalling into Massive Clusters (Wang, J., **Xu, W.**, et al. 2020, *apj*, 903(2):103)
- E. The clumpy torus around type II AGN as revealed by X-ray fluorescent lines (Liu, J., Liu, Y., [...] **Xu, W.**, et al. 2016, *mnras*, 459, L100)
- F. The Spin of The Black Hole in the X-ray Binary Nova Muscae 1991 (Chen, Z., Gou, L., [...] **Xu, W.**, et al. 2016, *apj*, 825, 45)

• **Papers in review or to submit:**

- Mass comparison of massive halos: Insights from redMaPPer clusters, DESI Groups, and Lensing Methods (Chen X., **Xu W.***, Li R., submitted to *ApJ*, *in review*)
*: corresponding author
- XMM-Newton follow-up of a sample of apparent low surface brightness galaxy groups detected in the ROSAT All-Sky Survey (Spinelli C., Veronica A., Pacaud F., Reiprich T.H., Migkas K., **Xu W.** and Ramos-Ceja M. E., submitted to *A&A*, *in review*)
- X-ray – cosmic shear cross-correlations: detection and constraints on baryonic effects (**Xu W.**, Li R., Shan H., Yao J., *to submit to ApJ*)
- The prediction of CSST performance on the profile of dark matter halos (**Xu W.**, Li R., Shan H., Yao J., *to submit to RAA*)
- Mock Observations for the CSST Mission: Multi-Channel Imager – The Cluster Field (Xie Y., ..., **Xu W.**, ..., *to submit to RAA*)
- A catalogue of 3363 galaxy clusters derived from XMM-Newton X-ray images (Yuan Z., Wen Z., **Xu W.** & Han J., *to submit to A&A*)

OBSERVATION PROPOSALS:

- AstroSat AO-12, 119ksec, ID: A10-065, observed, 2021, PI
- AstroSat AO-10, 48.5ksec, ID: A10-065, observed, 2019, PI
- XMM-Newton AO-19, 60ksec, ID:86388, observed, 2019, Co-I
- Chandra Cycle-27, 50ksec, ID:27800303, *submitted*, Mar. 2025, PI
- TAP CFHT K1 Observing Proposal, 4.0hr, ID: K1-04-00085, *submitted*, Mar. 2025, PI
- EP - FXT observing Proposal, 60ksec, ID: Cycle2-0045, *submitted*, April 2025, PI

TALKS and POSTERS:

- “eROSITA & HUBS Scientific Exploitation Workshop 2024”, Mar. 2024, 20min talk, “Detection of X-ray extended clusters & Research of dark matter halos”
- “The NAOC workshop of physics of galaxy clusters”, July 2024, 45min talk of “X-ray galaxy clusters with low surface-brightness profile”
- CSST scientific data system and scientific team 2024 seminar, Oct. 2024, 15min, “The prediction of galaxy-galaxy lensing of dark matter halos”
- Academic seminar on the evolution of galaxies and cosmological research of the CSST, Nov. 2024, highlight talk of sub-topic 3, “The measurement of galaxy-galaxy lensing and prediction of CSST performance”
- Tsinghua DOA lunch talk, Nov. 2024, 40min talk, “The research of dark matter halo with galaxy-galaxy lensing method”
- Xtalk online seminars, Dec. 2024, 40min talk, “Detection of X-ray extended galaxy clusters with ROSAT and XMM-Newton data”
- The 2nd HUBS workshop, Xiamen, Apr. 2022, talk (15min)
- The KooGiG-Junior forum (KIAA Forum on Gas in Galaxies for Early Career Scientists), online, Nov. 2021, talk (15min)
- ACAMAR7 (Australia-China Workshop on Astrophysics), Nov. 2021, poster + 3min video
- 2020 Jing-Guang-Xia Astrophysics Meeting, Xiamen, Dec. 2020 (10min)
- Annual Meeting of Chinese Astronomical Society, Delingha, Oct. 2019 (15min)
- KIAA lunch talk, Dec. 2018, talk (45min)
- German eROSITA Consortium meeting, Ringberg, Oct. 2018, talk (15+5 min)
- German eROSITA Consortium meeting, Garching, Apr. 2018, talk (15+5 min)
- German eROSITA Consortium meeting, Hamburg, Jul. 2017, talk (15+5 min)
- NAOC Seminar, Dec. 2017, talk (45+15 min)
- NJU Seminar, Dec. 2017, talk (45+15 min)
- geco-lam2017 : Galaxy Clusters Across Cosmic Time, Aix en Provence, France, Jul. 2017, poster and introduction in 1min
- Bonn-Cologne Graduate School of Physics and Astronomy (BCGS) poster section, Bonn, poster to physics students (1 min)

TUTORIALS:

- X-ray astronomy, Uni-Bonn, 2018
- high-energy astrophysics, NAOC, 2015
- high-energy astrophysics, PKU, 2015

HONORS AND AWARDS:

- 2016, National scholarship of China
- 2016, CAS-DAAD scholarship
- 2014/2015, NAOC-AMD scholarship
- Outstanding member of student union at College and Graduate school
- 2010, NAOC Scholarships
- 2009, National Encouragement scholarship
- 2007-2011, First scholarship three times and Second one for four times in Shandong University at Weihai