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**Institution:** National Astronomical Observatories, Chinese Academy of Sciences (NAOC)

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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, 2023-2025, “the identification of very extended galaxy clusters with XMM-COSMOS and CDF-S data”

## ACADEMIC PUBLICATION:

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

- **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)

**OBSERVATION PROPOSALS:**

- AstroSat AO-12, 119ksec, ID: A10-065, observed, 2021, PI
- XMM-Newton AO-19, 60ksec, ID:86388, observed, 2019, Co-I

**SELECTED TALKS:**

- eROSITA & HUBS Scientific Exploitation Workshop 2024, Mar. 2024, 20min talk, “Detection of X-ray extended clusters & Research of dark matter halos”
- NAOC workshop of physics of galaxy clusters, July 2024, 45min talk of “X-ray galaxy clusters with low surface-brightness profile”
- 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 KooGiG-Junior forum (KIAA Forum on Gas in Galaxies for Early Career Scientists), online, Nov. 2021, talk (15min)
- 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)
- NAOC Seminar, Dec. 2017, talk (45+15 min)
- NJU Seminar, Dec. 2017, talk (45+15 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