

# Yerong Xu

Junior Postdoctoral Fellow  
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## EDUCATION

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- **Università degli Studi di Palermo & INAF-IASF Palermo, Palermo, Italy** 2020.11-2024.03  
Ph.D. in Astrophysics, Supervisor: Prof. Giancarlo Cusumano & Dr. Ciro Pinto  
Thesis: A high-resolution study of powerful winds in highly accreting supermassive black holes
- **University of Chicago, Chicago, U.S.** 2019.09-2020.06  
M.Sc. in Physical Science Division, Supervisor: Prof. Vikram V. Dwarkadas  
Thesis: Interaction of the SN 2014C with a dense circumstellar shell
- **Fudan University, Shanghai, China** 2015.09-2019.06  
B.Sc. in Physics (**Honor**), Supervisor: Prof. Cosimo Bambi  
Project: A study of the strong gravity region of the black hole in GS 1354-645

## RESEARCH POSITIONS & INTERNSHIPS

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- **Institute of Space Sciences - CSIC, Barcelona, Spain** 2025.09-present  
Junior Postdoctoral Fellow
- **Saint Mary's University, Halifax, Canada** 2024.08-2025.08  
Postdoctoral researcher, Host: Prof. Luigi Gallo  
Project: High-resolution spectroscopy of *XRISM* observations on active galactic nuclei
- **Massachusetts Institute of Technology, Cambridge, U.S.** 2023.01-2023.06  
Erasmus+ visiting student, Host: Prof. Erin Kara  
Project: Investigating impacts of ultra-fast outflows on X-ray time lags in active galactic nuclei
- **European Space Astronomy Centre, Madrid, Spain** 2022.09-2022.12  
ESA archival research visitor, Host: Dr. Jacobo Ebrero  
Project: A systematic study of wind response around highly-accreting supermassive black holes
- **California Institute of Technology, Pasadena, U.S.** 2019.07-2019.08  
Summer internship, Supervisor: Dr. Javier A. García & Prof. Fiona A. Harrison  
Project: The nature of soft excess in ESO 362-G18 revealed by XMM-Newton and NuSTAR Spectroscopy
- **University of Nottingham, Nottingham, U.K.** 2018.01-2018.06  
Exchange student, Supervisor: Prof. Meghan Gray  
B.Sc. Thesis: Detecting the Substructure in Cluster of Galaxies A901/2 with STAGES Survey

## RESEARCH INTERESTS

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High-energy astrophysics ★ X-ray High-spectral-resolution spectroscopy ★ Active galactic nuclei (AGN) ★ AGN Feedback ★ Disk winds ★ Ultra-fast Outflows ★ Black holes ★ Spectral-timing analysis

## PUBLICATION SUMMARY ([NASA ADS](#))

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**First author on 8 referred publications** (ApJ, MNRAS, A&A, PASJ) and co-author of 9 additional refereed publications with 1 Proceedings. **First author citations: 144, total citations: 279, h-index: 11**

## GRANTS AND AWARDS

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<b>XRISM AO</b> (Cycle-2), PI: Awarded <b>250 ks</b> ; co-I: Awarded <b>250 ks</b>	2025
<b>NuSTAR GO</b> (Cycle-11), co-I: <b>325 ks</b> (PI: Walton), <b>150 ks+105 ks XMM</b> (PI: Reeves)	2025
<b>Swift ToO</b> , PI: Awarded <b>7ks</b>	2025
<b>XMM-Newton LP</b> (AO-24), co-I: Awarded <b>886 ks</b> (PI: Pinto)	2024
<b>Swift GTO</b> (Cycle-21), PI: Awarded <b>91 ks</b>	2024
<b>XRISM AO</b> (Cycle-1), co-PI: Awarded <b>200 ks</b> (PI: Gallo)	2024
INAF LG: BLOSSOM Project, PI: Pinto, co-I: <b>Xu (€200k)</b>	2023
<b>Swift GTO</b> (Cycle-20), PI: Awarded <b>75 ks</b>	2023
PRIN MUR 2022: SEAWIND Project, PI: Pinto, co-I: <b>Xu (€250k)</b>	2023
Erasmus+ Extra EU study program ( <b>€11k</b> )	2023
European Space Agency Archival Research Visitor program ( <b>€10k</b> )	2022
<b>XMM-Newton GO</b> (AO-21), PI: Awarded <b>250 ks</b>	2021
Outstanding undergraduate of Shanghai	2019
Fudan Undergraduate Research Opportunities Program ( <b>\$800</b> )	2019
China Scholarship Council Outstanding Undergraduate Exchange Program ( <b>£7k</b> )	2018
Tung OOCL scholarship ( <b>\$1.3k</b> )	2016

## SCIENTIFIC PRESENTATIONS

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ICE-CSIC Pizza Seminar, Barcelona, Spain, 2025	Invited Talk
Shanghai Astronomical Observatory (SHAO), Shanghai, China, 2025	Invited Talk
University of Science and Technology of China, Hefei, China, 2025	Invited Talk
Saint Mary's University Colloquium, Halifax, Canada, 2025	Invited Talk
ICA symposium, Halifax, Canada, 2025	Contributed Talk
COSPAR 2024, Busan, Korea, 2024	Two contributed Talks
Xiamen University, Xiamen, China, 2024	Invited Talk
Nanjing University, Nanjing, China, 2024	Invited Talk
Fudan University, Shanghai, China, 2024	Invited Talk
IRAP GAHEC group seminar, Toulouse, France, 2024	Invited Talk
Young Astronomers on Galactic Nuclei 2023, Palermo, Italy, 2023	Contributed Talk
Chandra High Resolution X-ray Spectroscopy workshop, Cambridge, U.S., 2023	Contributed Talk
X-ray Universe 2023, Athens, Greece, 2023	Contributed Talk
CfA High Energy Special Seminar, Cambridge, U.S., 2023	Invited talk
Chandra HETG group Seminar, Cambridge, U.S., 2023	Contributed talk
MIT Erin Kara group Seminar, Cambridge, U.S., 2023	Invited talk
Athena X-ray Observatory Conference, Barcelona, Spain, 2022	Poster
XMM-Newton Workshop, Madrid, Spain, 2022	Contributed Talk
1st Mondragone Frontiers of Astronomy Series, Roma, Italy, 2022	Contributed Talk
50 years Astronomical X-ray spectroscopy (NL), Leiden, Netherlands, 2022	Contributed talk
Fudan University, Shanghai, China, 2021	Invited talk
Disk Wind Conference, Durham, U.K., 2021	Contributed talk

## PROFESSIONAL SERVICE AND TEACHING EXPERIENCE

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<b>Reviewer</b> of Monthly Notices of the Royal Astronomical Society	2025-present
<b>Postdoctoral Member</b> of the XRISM team (Extragalactic compact group)	2024-present
<b>Member</b> of the Science Working Group (Galaxy Ecosystems) for the HUBS observatory	2024-present
<b>Member</b> of the Science Working Group 2.3 for the ATHENA observatory	2021-present
<b>Lecturer</b> of The Sky Seminar at Shanghai West Yan'an Junior Middle school	2024
<b>Teaching Assistant</b> , <i>Astrophysics laboratory of thermal X-ray plasmas</i> , Università degli Studi di Palermo	2022

### First Author Peer-Reviewed Publications

- Xu, Y.**, Gallo, L. C., Hagino, K. et al. 2025, [PASJ](#), **77**, S223  
*Unraveling the structure of the stratified ultra-fast outflows in PDS 456 with XRISM*
- Xu, Y.**, Pinto, C., Kara, E. et al. 2024, [A&A](#), **A78**,11  
*Effects of ultra-fast outflows on X-ray time lags in AGN*
- Xu, Y.**, Pinto, C., Barret, D., et al. 2024, [A&A](#), **A179**, 23  
*A systematic study of the ultra-fast outflow responses to luminosity variations in active galactic nuclei*
- Xu, Y.**, Pinto, C., Rogantini, D., et al. 2023, [MNRAS](#), **523**, 2158  
*Constraints on the ultrafast outflows in the narrow-line Seyfert 1 galaxy Mrk 1044 from high-resolution time- and flux-resolved spectroscopy*
- Xu, Y.**, Pinto, C., Kara, E., et al. 2022, [MNRAS](#), **513**, 1910  
*Ejection–accretion connection in NLS1 AGN 1H 1934-063*
- Xu, Y.**, Pinto, C., Bianchi, S., et al. 2021, [MNRAS](#), **508**, 6049  
*Wind-luminosity evolution in NLS1 AGN 1H 0707-495*
- Xu, Y.**, García, J., Walton, D. J., et al. 2021, [ApJ](#), **913**, 13  
*The Nature of Soft Excess in ESO 362-G18 Revealed by XMM-Newton and NuSTAR Spectroscopy*
- Xu, Y.**, Nampalliwar, S., Abdikamalov, A. B., et al. 2018, [ApJ](#), **865**, 134  
*A study of the strong gravity region of the black hole in GS 1354-645*

### Co-Authored Peer-Reviewed Publications

- Gonzalez, A. G., Gallo, L.C., Ingram, A. et al. 2025, [ApJ](#), **994**, 151  
*Spectrotemporal Analysis of X-Ray Reverberation in the Seyfert 1.5 Galaxy 4U 1344–60*
- Wang, Y.J., Wang, T., Mao, J., et al. 2025, [A&A](#), [accepted](#)  
*Warm absorber outflows in radio-loud active galactic nucleus 3C 59*
- XRISM collaboration 2025, [Nature](#), **641**, 1132  
*Structured ionized winds shooting out from a quasar at relativistic speeds*
- Wang, Y.J., Wang, T., Xu, K., et al. 2024, [ApJ](#), **980**, 107  
*Minor-merger induced star formation rejuvenation in an elliptical radio-loud quasar host, 3C 59*
- Feng, H.C., Li, S.S., Bai, J.M., et al. 2024, [ApJ](#), **979**, 131  
*Reverberation Mapping of Two Variable Active Galactic Nuclei: Probing the Distinct Characteristics of the Inner and Outer Broad-line Regions*
- Thomas, B. P., Wheeler, J. C., Dwarkadas, V. V., et al. 2022, [ApJ](#), **930**, 57  
*Seven Years of SN 2014C: A Multiwavelength Synthesis of an Extraordinary Supernova*
- Parker, M. L., Alston, W. N., Härer, L., et al. 2021, [MNRAS](#), **508**, 1798  
*The nature of the extreme X-ray variability in the NLS1 1H 0707-495*
- Zhou, M., Abdikamalov, A. B., Ayzenberg, D., et al. 2019, [Europhysics Letters](#), **125**, 30002  
*Singularity-free black holes in conformal gravity: New observational constraints*
- Bambi, C., Abdikamalov, A. B., Ayzenberg, D., et al. 2018, [Universe](#), **4**, 79  
*relxill\_nk: A Relativistic Reflection Model for Testing Einstein's Gravity*

### Non-Peer-Reviewed Publications

- Abdikamalov, A. B., Ayzenberg, D., Bambi, C., et al. 2019, [MDPI Proceedings](#), **17**, 2  
*Testing general relativity with supermassive black holes using X-ray reflection spectroscopy*