

# Ning Jiang

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## Research Interests

- Tidal disruption events.
- Intermediate-mass black holes.
- Supermassive black hole binaries.
- Environments of SMBHs: from sub-pc to halo scale.
- Time domain survey.
- Quasar host galaxies.

## Education

- 07/2009–06/2015 **Ph.D. in Astrophysics**, *Univ. of Sci. & Tech. of China*.  
- Supervisor: Prof. Tinggui Wang & Xiaobo Dong  
- Dissertation: Low-mass Black Holes and Their Host Galaxies
- 10/2012–09/2014 **Research Assistant**, *Carnegie Observatories*.  
- Supervisor: Prof. Luis C. Ho
- 09/2005–06/2009 **Bachelor of Physics**, *Univ. of Sci. & Tech. of China*.  
- Supervisor: Prof. Tinggui Wang  
- Thesis: Quasar Selection for LAMOST Survey based on SDSS-UKIDSS Optical-IR Colors

## Position

- 04/2019–present **Research Associate**, *Univ. of Sci. & Tech. of China*.
- 02/2018–03/2019 **Associate Research Fellow**, *Univ. of Sci. & Tech. of China*.
- 07/2015–01/2018 **CFA Postdoc Fellow**, *Univ. of Sci. & Tech. of China*.  
- Advisor: Prof. Huiyuan Wang

## Honors & Awards

- 2023 **IOP Outstanding Reviewer Awards 2022**.
- 2017 **Top 10 Achievements in Astronomical Science and Technology in 2016 in China**, *The First Detection of Infrared Echoes of Tidal Disruption Events*, National.
- 2017 **Top 10 Research Progresses of School of Physical Sciences in 2016**, *Infrared Echoes of Tidal Disruption Events*, USTC.
- 2014 **National scholarship for graduate students**, USTC, (National).
- 2014 **CAS Dean scholarship**, USTC, (University).

## Service

Referee for Research in Astronomy and Astrophysics (5, 2019–).

	Space Science Reviews (1, 2020-).
	The Astrophysical Journal (2, 2021-).
	The Astrophysical Journal Letters (2, 2022-).
	Chinese Science Bulletin (1, 2022-).
	Progress in astronomy (1, 2023-).
<b>Correspondence Reviewer</b>	National Natural Science Foundation of China (NSFC, 2021-).
<b>Committee Member</b>	Time Allocation Committee (TAC) for Telescope Access Program (2023A).
	LAMOST Users Committee (2023-).

## Press Release or Highlights

- 2023.07 [Phys.org](#), *New tidal disruption event discovered by Chinese astronomers.*
- 2023.03 [Phys.org](#), *SN 2017egm is a helium-rich superluminous supernova, study finds.*
- 2022.02 [Science](#), *Crash of the titans: imminent merger of giant black holes predicted.*
- 2020.06 [Phys.org](#), *Mid-infrared flare detected in a nearby active galaxy.*
- 2020.01.30 [AAS Nova Journals Digest](#), *An Ongoing Mid-infrared Outburst in the White Dwarf 0145+234: Catching in Action the Tidal Disruption of an Exoasteroid?.*
- 2019.05.02 [AAS Nova Journals Digest](#), *Rapid "Turn-on" of Type-1 AGN in a Quiescent Early-type Galaxy SDSS1115+0544.*
- 2018.11 [Phys.org](#), *Galaxy NGC 3319 may host an active intermediate-mass black hole, study finds.*
- 2017.07 [Nature News](#), *Clues emerge in mystery of flickering quasars.*
- 2017.05 [AAS Nova Highlights](#), *Echoes from a Dying Star.*
- 2016.09 [NASA/JPL](#), *Studies Find Echoes of Black Holes Eating Stars.*

## Publications

[ADS Library for an overview](#): 67 refereed (10 as 1st author, 12 as 2nd author, 11 as 3rd author, 7 as 4th author, 26 as others), 1 invited and 1 non-refereed (RNAAS) publications. Total citations >1000, h-index=20 (as of 2023 December).

### Major refereed publications (as 1st/2nd and corresponding author\*, with >300 citations)

21. Huang, S.-F.\*, **Jiang, N.\***, Shen, R.-F.\*, Wang, T.-G., Sheng, Z.-F., 2023, "*Dissonance in Harmony: The UV/Optical Periodic Outbursts of ASASSN-14ko Exhibit Repeated Bumps and Rebrightenings*", [ApJL](#), **956**, L46.
20. Huang, S.-F.\*, **Jiang, N.\***, Lin, Z.-Y., Zhu, J.-Z., Wang, T.-G., 2023, "*AT2018dyk revisited: a tidal disruption event candidate with prominent infrared echo and delayed X-ray emission in a LINER galaxy*", [MNRAS](#), **525**, 4057.
19. **Jiang, N.\***, Zhou, Z.-Y., Zhu, J.-Z., Wang, Y.-B., Wang, T.-G., 2023, "*Two Candidate Obscured Tidal Disruption Events Coincident with High-energy Neutrinos*", [ApJL](#), **953**, L12.

18. Zhu, J.-Z.\*, **Jiang, N.\***, Wang, T.-G., 2023, "AT 2023clx: the Faintest and Closest Optical Tidal Disruption Event Discovered in Nearby Star-forming Galaxy NGC 3799", [ApJL, 952, L35](#).
17. Zhu, J.-Z., **Jiang, N.\***, Dong, S.-B.\*, 2023, "SN 2017egm: A Helium-rich Superluminous Supernova with Multiple Bumps in the Light Curves", [ApJ, 949, 23](#).
16. Lin, Z.-Y.\*, **Jiang, N.\***, Kong, X.\*, 2022, "The Luminosity Function of Tidal Disruption Flares for the ZTF-I Survey", [ApJL, 939, L33](#).
15. Dou, L.-M.\*, **Jiang, N.\***, Wang, T.-G.\*, 2022, "X-ray view of a merging supermassive black hole binary candidate SDSSJ1430+2303: results from the first  $\sim 200$  days observations", [A&A, 665, L3](#).
14. Lin, Z.-Y.\*, **Jiang, N.\***, Kong, X.\*, 2022, "The prospects of finding tidal disruption events with 2.5-m Wide-Field Survey Telescope based on mock observations", [MNRAS, 513, 2422](#).
13. Wang, Y.-B.\*, **Jiang, N.\***, Wang, T.-G.\*, et al. 2022, "Discovery of ATLAS17jrp as an Optical-, X-Ray-, and Infrared-bright Tidal Disruption Event in a Star-forming Galaxy", [ApJL, 930, L4](#).
12. Wang, Y.-B.\*, **Jiang, N.\***, Wang, T.-G.\*, et al. 2022, "Mid-Infrared Outbursts in Nearby Galaxies (MIRONG). II. Optical Spectroscopic Follow-up", [ApJS, 258, 21](#).
11. **Jiang, N.\***, Wang, T.-G.\*, Hu, X.-Y.\*, et al. 2021, "Infrared Echoes of Optical Tidal Disruption Events:  $\sim 1\%$  Dust-covering Factor or Less at Subparsec Scale", [ApJ, 911, 31](#).
10. **Jiang, N.\***, Wang, T.-G.\*, Dou, L.-M.\*, et al. 2021, "Mid-Infrared Outbursts in Nearby Galaxies (MIRONG).I. Sample Selection and Characterization", [ApJS, 252, 32](#).
9. He, Z.-C.\*, **Jiang, N.\***, Wang, T.-G.\*, et al. 2021, "An Extraordinary Response of Iron Emission to the Central Outburst in a Tidal Disruption Event Candidate", [ApJL, 907, L29](#).
8. Sun, L.-M.\*, **Jiang, N.\***, et al. 2020, "A Mid-infrared Flare in the Active Galaxy MCG-02-04-026: Dust Echo of a Nuclear Transient Event", [ApJ, 898, 129](#).
7. **Jiang, N.\***, Wang, T.-G., Mou, G.-B., et al. 2019, "Infrared Echo and Late-stage Re-brightening of Nuclear Transient PS1-10adi: Exploring the Torus with Tidal Disruption Events in Active Galactic Nuclei", [ApJ, 871, 15](#).
6. **Jiang, N.\***, Wang, T.-G.\*, Zhou, H.-Y.\*, et al. 2018, "Discovery of An Active Intermediate-Mass Black Hole Candidate in the Barred Bulgeless Galaxy NGC 3319", [ApJ, 869, 49](#).
5. **Jiang, N.\***, Wang, T.-G.\*, Yan, L.\*, et al. 2017, "Mid-infrared flare of TDE candidate PS16dtm: dust echo and implications for the spectral evolution", [ApJ, 850, 63](#).
4. **Jiang, N.\***, Wang, H.-Y.\*, Mo, H.-J.\*, et al. 2016, "Differences in Halo-Scale Environments between Type 1 and Type 2 AGNs at Low Redshift", [ApJ, 832, 111](#).
3. **Jiang, N.\***, Dou, L.-M., Wang, T.-G., et al. 2016, "The WISE Detection of an Infrared Echo in Tidal Disruption Event ASASSN-14li", [ApJL, 828, L14](#).
2. **Jiang, N.\***, Ho, L.C., Dong, X.-B., et al. 2013, "UM 625 Revisited: Multiwavelength Study of a Seyfert 1 Galaxy with a Low-mass Black Hole", [ApJ, 770, 3](#).
1. **Jiang, N.\***, Zhou, H.-Y., Ho, L. C., et al. 2012, "Rapid Infrared Variability of Three Radio-loud Narrow-line Seyfert 1 Galaxies: A View from the Wide-field Infrared Survey Explorer", [ApJL, 759, L3](#).

## Invited or non-refereed first-author publications

2. **Jiang, N.\*** 2018, "Intraday Mid-infrared Variability of CTA 102 During Its 2016 Giant Outburst", *RNAAS*, **2**, 134, non-refereed.
1. **Jiang, N.\***, Wang, T.-G., Dou, L.-M. 2018, "Tidal disruption events and their echoes", *Physics*, **47(5)**:303-309, invited, Chinese.

## Refereed publications with significant contributions (as 2nd, 3rd, 4th author or non-1st/2nd corresponding author)

15. Zhang, W.-J., Shu, X.-W.\*, Sheng, Z.-F.\*, Sun, L.-M., **Jiang, N.\***, et al. 2022, "Discovery of late-time X-ray flare and anomalous emission line enhancement after the nuclear optical outburst in a narrow-line Seyfert 1 Galaxy", *A&A*, **660**, 119.
18. Liao, N.-H., Sheng, Z.-F., **Jiang, N.**, et al. 2022, "GB6 J2113+1121: A Multiwavelength Flaring  $\gamma$ -Ray Blazar Temporally and Spatially Coincident with the Neutrino Event IceCube-191001A", *ApJL*, **932**, L25.
17. Mou, G.-B., Dou, L.-M., **Jiang, N.**, et al. 2021, "Years Delayed X-ray Afterglows of TDEs Originated from Wind-Torus Interactions", *ApJ*, **908**, 197.
16. Shu, X.-W., Zhang, W.-J., L, S., **Jiang, N.**, et al. 2020, "X-ray flares from the stellar tidal disruption by a candidate supermassive black hole binary", *Nature Communications*, **11**, 5876.
15. Dai, B.-B., Shu, X.-W., **Jiang, N.**, et al. 2020, "Compact radio emission from nearby galaxies with mid-infrared nuclear outbursts", *ApJL*, **896**, L27.
15. P. H. T. Tam, P. S. Pal, Y. D. Cui, **N. Jiang**, et al. 2020, "Multi-wavelength observations of the BL Lac object Fermi J1544-0649: one year after its awakening?", *Journal of High Energy Astrophysics*, **26**, 45.
14. Sheng, Z.-F., Wang, T.-G., **Jiang, N.**, et al. 2020, "Initial results from a systematic search for changing-look active galactic nuclei selected via mid-infrared variability", *ApJ*, **889**, 46.
13. Wang, T.-G.\*, **Jiang, N.**, et al. 2019, "An On-going Mid-infrared Outburst in the White Dwarf 0145+234: Catching in Action of Tidal Disruption of an Exoasteroid?", *ApJL*, **886**, 5.
12. Liao, N.-H., Dou, L.-M., **Jiang, N.**, et al. 2019, "Multi-wavelength Variability Properties of CGRaBS J0733+0456: Identifying a Distant gamma-ray blazar at  $z=3.01$ ", *ApJL*, **879**, L9.
11. Yan, L., Wang, T.-G., **Jiang, N.**, et al. 2019, "Rapid "Turn-on" of Type-1 AGN in a Quiescent Early-type Galaxy SDSS1115+0544", *ApJ*, **874**, 44.
10. Wang, T.-G., Yan, L., Dou, L.-M., **Jiang, N.**, et al. 2018, "Long-Term Decline of the Mid-Infrared Emission of Normal Galaxies: Dust Echo of Tidal Disruption Flare?", *MNRAS*, **477**, 2943.
9. Shu, X.-W., Wang, S., Dou, L.-M., **Jiang, N.**, et al. 2018, "A Long Decay of X-Ray Flux and Spectral Evolution in the Supersoft Active Galactic Nucleus GSN 069", *ApJL*, **857**, L16.
8. Sheng, Z.-F., Wang, T.-G., **Jiang, N.**, et al. 2017, "Mid-infrared Variability of Changing-look AGNs", *ApJL*, **846**, L7.
7. Dou, L.-M., Wang, T.-G., Yan, L., **Jiang, N.**, et al. 2017, "Discovery of a Mid-infrared Echo from the TDE candidate in the nucleus of ULIRG F01004-2237", *ApJL*, **841**, L8.

6. Liu, W.-J., Qian, L., Dong, X.-B., **Jiang, N.**, et al. 2017, "A Ringed Dwarf LINER 1 Galaxy Hosting an Intermediate-mass Black Hole with Large-scale Rotation-like H $\alpha$  Emission", *ApJ*, **837**, 109.
5. Shu, X.-W., Wang, T.-G., **Jiang, N.**, et al. 2017, "Central Engine and Host Galaxy of RXJ 1301.9+2747: A Multi-wavelength view of a Low-mass Black Hole Active Galactic Nuclei with Ultrasoft X-ray Emission", *ApJ*, **837**, 3.
4. Dou, L.-M., Wang, T.-G., **Jiang, N.**, et al. 2016, "Long Fading Mid-Infrared Emission in Transient Coronal Line Emitters: Dust Echo of Tidal Disruption Flare", *ApJ*, **832**, 188.
3. Liu, W.-J., Zhou, H.-Y., **Jiang, N.**, et al. 2016, "SDSS J163459.82+204936.0: A Ringed Infrared-luminous Quasar with Outflows in Both Absorption and Emission Lines", *ApJ*, **822**, 64.
2. Jiang, P., Zhou, H.-Y., Pan, X., **Jiang, N.**, et al. 2016, "Strong Ly $\alpha$  Emission in the Proximate Damped Ly $\alpha$  Absorption Trough toward the Quasar SDSS J095253.83+011422.0", *ApJ*, **821**, 1.
1. Lian, J.-H.\*, Kong, X.\*, **Jiang, N.\***, et al. 2015, "Surface brightness profiles of blue compact dwarf galaxies in the GOODS-N and GOODS-S field", *MNRAS*, **451**, 130.

## Selected Approved Proposals & Grants (as PI)

- 2023 **P200/DBSP 1 night**, *Spectroscopic Follow-up Observations of the Nuclear Transients Found by the WFST*, 2024A, PI.
- 2022 **LCOGT 35 hour**, *Continuous Daily Optical Monitoring of a SMBH Binary Candidate at its Last Inspiring Stage*, TAP/NAOC2023A-0102, PI.
- 2022 **GEMINI/GMOS 4.5 hour**, *Spectroscopic Monitoring of a SMBH Binary Candidate at its Last Inspiring Stage*, GN-2023A-Q-110, PI.
- 2022 **LCOGT 20 hour**, *Further Daily Optical Monitoring of an unprecedented SMBH Binary at its Last Inspiring Stage*, TAP/NAOC2022B-002, PI.
- 2022 **XMM-Newton 5 $\times$ 100ks**, ToO, **ObsID: 0910190101, 0910190701, 0910190901, 0910191101, 0910191301**, PI(proposer).
- 2022 **HST 5 orbits**, *Exploring the Nature of the Recurring Flare in ULIRG F01004-2237 with UV spectroscopic Diagnosis*, **Cycle 30, DDT (16943)**, PI.
- 2022 **LCOGT 14 hour**, *Optical Monitoring of an unprecedented SMBH Binary Candidate at its Last Inspiring Stage*, 2022A-003, DDT, PI.
- 2022 **Chandra 60ks**, *Probing the X-rays from an unprecedented SMBH Binary at the Last Inspiring Stage*, **cycle 23, DDT**, PI.
- 2022 **XMM-Newton 75ks**, ToO, **ObsID: 0893810201**, PI(proposer).
- 2021 **XMM-Newton 50ks**, ToO, **ObsID: 0893810401**, PI(proposer).
- 2021- **Swift >200ks**, ToO 16602, 16645, 16674, 16681, 16700, 16754, 16780, 16909, 17050, 17188, 17383, 17575, 17688, 18061, 18138, 18143, 18166, 18391, PI.
- 2020 **LCOGT/66 hour**, *Prompt Optical Monitoring of Mid-infrared Outburst in Nearby Galaxies*, 2021A, PI.
- 2020 **National Natural Science Foundation of China (12073025)**, *Probing the pc-scale environment of supermassive black holes by infrared echoes*, 2021.01-2024.12, PI, ¥610,000.
- 2020 **P200/DBSP 1 night**, *Toward a Sample of Dusty TDEs without Missing Energy Selected by Ultra-luminous MIR Flares*, 2020B, PI.

- 2019 **P200/CWI 1 night**, *P200/CWI Observations of NGC 3319 and NGC 4178: Clues to the SMBH Seeds in Barred Bulgeless Galaxies*, 2020A, PI.
- 2019 **P200/DBSP 2 nights**, *Toward a Sample of Bona Fide Turn-on AGNs Selected by Mid-infrared Light Curves: Spectral Follow-up*, 2019B, PI.
- 2018 **CFHT/WIRCam 9.6 hours**, *NIR Imaging of Nearby Galaxies with MIR flares II: Further Monitoring and Completing the Sample*, 2019A, PI.
- 2018 **CFHT/WIRCam 6.2 hours**, *NIR Imaging of Nearby Galaxies with recent MIR flares: Characterizing Light curve and (sub)-pc Scale Dust*, 2018B, PI.
- 2016 **National Natural Science Foundation of China (11603021)**, *Large scale environments of AGNs*, 2017.01-2019.12, PI, ¥220,000.

## --- Talks (Selected, Recent)

- 2023/07 **"Infrared and Optical Study of Transient Accretion onto Supermassive Black Holes"**, *Workshop on MultiWavelength Study of Quasars and Active Galactic Nuclei*, Lijiang.
- 2023/03 **"The Opportunities and Challenges of Studying Tidal Disruption Events with 2.5-meter Wide Field Survey Telescope (WFST)"**, *NAOC and Caltech Bilateral Workshop on Transient Science and Follow-up Observations*, online.
- 2022/09 **"Discovery and follow-ups of an unprecedented SMBH Binary candidate approaching final merger"**, *The 2nd Donglu Astrophysics Forum*, Yunnan University, Kunming (online).
- 2022/08 **"EM Counterparts for GW sources in Active Galactic Nuclei in the Era of Time-domain Astronomy"**, *TianQin Astro Workshop*, Sun Yat-sen University, Zhuhai (online).
- 2022/06 **"Discovery and Follow-ups of a SMBH binary candidate predicted to merge within three years"**, *The 60th Anniversary of X-Ray Astronomy: X-ray Astronomy in the Time-domain & Multi-messenger Era*, Beijing (online).
- 2021/12 **"Unveiling the dynamic IR sky: A Journey from Missing Tidal Disruption Events"**, *2021 TAP workshop*, Beijing (online).
- 2021/12 **"Recent progresses on tidal disruption events and other transient accretion onto SMBHs"**(invited talk), *Chinese Astronomical Society Annual Meeting*, Nanchong (online).
- 2021/06 **"Infrared echoes of Tidal Disruption Events"**, *KIAA colloquium*, Peking University.
- 2021/04 **"Mid-Infrared Outburst in Nearby Galaxies (MIRONG): missing TDEs?"**, *Workshop on tidal disruption events*, Hangzhou.
- 2020/10 **"Infrared echoes of Tidal Disruption Events"**, *XMU colloquium*, Xiamen University.
- 2019/11 **"Exploring the Dusty Torus by the Infrared Echo of Outburst in AGNs"**, *X-Ray High-Energy Astrophysical Phenomena and Physical Processes*, Shexian.
- 2019/09 **"Pc-scale dust around SMBHs revealed by IR echoes of Tidal Disruption Events"**, *Mapping Central Regions of Active Galactic Nuclei*, Guilin.