Swayamtrupta Panda

Curriculum Vitae

International Gemini Observatory NSF/NOIRLab
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Professional Appointments

2024 – **International Gemini Observatory NSF/NOIRLab, Chile**, *Science Fellow.*

2022 – 2024 **Laboratório Nacional de Astrofísica (LNA), Itajubá, Brazil**, *PCi Postdoctoral Fellow.*

2021 – 2022 **Laboratório Nacional de Astrofísica (LNA), Itajubá, Brazil**, *CNPq Postdoctoral Fellow.*

2021 – 2022 **Kavli Institute for Astronomy and Astrophysics, Peking University, Beijing, China**, *Kavli-Boya Postdoctoral Fellow.*

2016 – 2022 **Center for Theoretical Physics, Warsaw, Poland**, *Research Assistant.*

Education

2016 – 2021 **Nicolaus Copernicus Astronomical Center, Warsaw, Poland**, *Ph.D. (with distinction)*, Thesis Supervisor: Prof. Bożena Czerny.
Thesis: "Physical Conditions in the Broad-line Regions in Active Galaxies"

2014 – 2016 **National Institute of Technology, Rourkela, India**, *Masters in Physics (with distinction)*, Thesis Supervisor: Prof. Ananta Charan Pradhan.
Thesis: "GALEX Observations of Planetary Nebulae"

2011 – 2014 **National Institute of Technology, Rourkela, India**, *Bachelors in Physics (with honors)*, Thesis Supervisor: Prof. Prajval Shastri (IIA Bangalore).
Thesis: "Physics of Seyfert Galaxies"

Honors, Awards, and Fellowships

2025 **Astronomical Observatory, Belgrade Visiting Science Fellow**, 8,000 Euros.

2025 **Heidelberg Institute for Theoretical Studies Young Researcher Travel Grant**, 10,000 Euros.

2024 – **International Gemini Observatory NSF/NOIRLab, Chile**, 70,000 USD/year.

2024 **Frontiers in Astronomy and Space Sciences: A Decade of Discovery and Advancement Award**, 3,000 Euros.

2023 **Heidelberg Institute for Theoretical Studies Young Researcher Travel Grant**, 12,500 Euros.

Polish Academy of Sciences International Researcher Award, 10,000 Euros.

2021 **Research Fund for International Scientists Project (RFIS), Bureau of International Cooperation of the National Natural Science Foundation of China (NSFC)**, 27,000 Euros.

The Brazilian National Council for Scientific and Technological Development Scholarship, 12,500 Euros.

Frontiers in Astronomy and Space Science Rising Star Award, 1,500 Euros.

2020 **Polish National Agency for Academic Exchange laureate**, 3,000 Euros.

Young Scientist Award, *Center for Theoretical Physics, Polish Academy of Sciences*, 1,500 Euros.

2019 **Polish Academy of Sciences President's Scholarship**, 10,000 Euros.

Award for Excellence in Science, *Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences*, 3,000 Euros.
For series of peer-reviewed papers published on the Main Sequence of Quasars

2018 **Young Researcher Award**, *Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences*, 1,500 Euros.

2017 **Best Poster Award**, *Quasars at All Cosmic Epochs, Padova, Italy*.
Title: *The physical driver of Eigenvector 1 in Quasar Main Sequence*

2016 **Best Postgraduate Thesis Award**, *National Institute of Technology, India*.

2015 **MITACS Globalink Research Fellow**, *University of Victoria, British Columbia, Canada*.

2014 **INSA-NASI-IASc. Research Fellow**, *Indian Institute of Astrophysics, Bengaluru, India*.

2011-2016 **INSPIRE Scholarship for Higher Education**, *Department of Science and Technology, Govt. of India*, 5,000 Euros.

2009-2011 **CAFAS Scholarship**, *Department of Higher Education, State of Odisha*, 500 Euros.

Proposals and Grants

90 proposals (33 as PI, 24 as primary co-PI), total hours awarded: 1884 hours

2026 **GEMINI-N Proposal**, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 12.15h, "*Probing Accretion Disk Geometry in Double-Peaked AGNs through Simultaneous Optical–NIR Spectroscopy*".

GEMINI-N Proposal, *(Band-3), PI Chen (SP as primary co-PI)*, 6.58h, "*Probing the AGN winds in the narrow-line region with radio VLBI and optical spectroscopy*".

GEMINI-N Proposal, *(Band-3), PI Dias dos Santos (SP as primary co-PI)*, 1.85h, "*Probing Accretion Disk Geometry in Double-Peaked AGNs through Simultaneous Optical–NIR Spectroscopy*".

GEMINI-S Proposal, *(Band-3), PI Chen (SP as primary co-PI)*, 1.14h, "*Probing the AGN winds in the narrow-line region with radio VLBI and optical spectroscopy*".

NASA/IRTF Proposal, *(Band-3), PI Panda*, 23h, "*NIR Spectroscopy of Changing-Look AGNs with IRTF/SpeX*".

XMM-Newton Proposal, *(Priority-3), PI Markowitz (SP as a co-PI)*, 10.83h, "*What drives one of the strongest C IV-absorbing winds in a BALQSO?*".

INAF/LBT Proposal, *(Band-1), PI Marziani (SP as a co-PI)*, 34.5h, "*NIR spectroscopic follow-up of brightest cluster galaxies from the WINGS survey*".

INAF/LBT Proposal, *(Band-1), PI Fatović (SP as a co-PI)*, 10.5h, "*Unmasking a binary SMBH candidate with LBT multi-line spectroscopy*".

INAF/Asiago Proposal, *(Band-1), PI D'Onofrio (SP as a co-PI)*, 192h, "*Monitoring and reverberation mapping of low-z Population B quasars*".

2025 **GEMINI-N Proposal**, *(Band-1), PI Panda*, 4.3h, "*Gemini GMOS Spectroscopy of the Best Sub-Parsec Supermassive Binary Black Hole Candidate*".

GEMINI-N Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 8.95h, "*Spectrophotometric monitoring of a bonafide double-peaked AGN*".

GEMINI-S Proposal, *(Band-1), PI Pozo-Nuñez (SP as primary co-PI)*, 3.5h, "*Shedding Light on the Dimmest Disks: Accretion disk Reverberation in an IMBH AGN*".

GEMINI-S Proposal, *(Band-1), PI Panda*, 3.86h, "*Benchmarking high-redshift quasar detection with S-PLUS 12-band photometry*".

NOIRLab Long/Large Proposal, *(Band-1), PI Dey/Schlegel (SP as a co-PI)*, 352h, "*The Intermediate-Band Imaging Survey*".

NASA/IRTF Proposal, *(Band-1), PI Panda*, 30.92h, "*A NIR Spectroscopic Study of Bright AGN Backup Targets for GRAVITY+/VLTI Interferometry*".

SOAR Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 64h, "*Multi-Wavelength Investigation of AGN Bonafide Double-Peaked Emission in the Broad Line Region*".

SOAR Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 16h, "*Probing Accretion Disk Geometry in Double-Peaked AGNs through Simultaneous Optical-NIR Spectroscopy*".

ESO Proposal, *PI Bañados (SP as a co-PI)*, 38.75h, "*Black hole mass estimation via accretion disc-luminosity relation*".

ESO Proposal, *PI Fatović (SP as a co-PI)*, 8h, "*Monitoring the evolution of emission line profiles in a sub-parsec supermassive binary black hole candidate*".

ESO Proposal, *PI Bañados (SP as a co-PI)*, 107.45h, "*Optical-NIR Mapping of Accretion Disks in Distant Quasars*".

ESO Proposal, *PI Li (SP as a co-PI)*, 3.83h, "*Resolving dynamical evolution of the broad-line region in the luminous quasar 3C 273 with GRAVITY*".

ESO Proposal, *PI D'Onofrio (SP as a co-PI)*, 28.8h, "*Stellar populations and nuclear activity of the Brightest Cluster Galaxies of the WINGS survey*".

GEMINI-S Proposal, *(Band-1), PI Panda*, 0.91h, "*CHRONOS: Constraints on Hubble-Lemaitre constant via ReverberatiON ObservationS: spectrophotometry of NGC 3783*".

GEMINI-S Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 7.43h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

GEMINI-S Proposal, *(Band-2), PI Marinello (SP as primary co-PI)*, 2.85h, "*RISE AGN - Resolving Iron emission in Super-Eddington Active Galactic Nuclei*".

GEMINI-N Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 5.24h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

GEMINI-N Proposal, *(Band-2), PI Miranda Marques (SP as primary co-PI)*, 4.91h, "*Unveiling the extended emission properties of outflowing gas in compact radio galaxies*".

GEMINI-N Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 5.24h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

NASA/IRTF Proposal, *(Band-1), PI Panda*, 30.84h, "*A NIR Spectroscopic Study of Bright AGN Backup Targets for GRAVITY+/VLTI Interferometry*".

SOAR Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 11.07h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

SOAR Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 8.59h, "*Unveiling the interplay between continuum and CIV emitting regions in high-redshift AGN*".

SOAR Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 11.40h, "*Study of the diffused continuum emission in the context of continuum reverberation mapping of AGNs*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 19.5h, "*Tracking the variations in a newly discovered changing-look AGN*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 16h, "*Disentangling the outflowing and virialized components' variability in highly-accreting AGNs around cosmic noon*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 14.5h, "*Probing the reverberation nature of WPVS48*".

ESO Proposal, *PI Bañados (SP as a co-PI)*, 58h, "*Black hole mass estimation via accretion disc-luminosity relation*".

2024 **GEMINI-N Proposal**, *(Band-1), PI Panda*, 2.46h, "*What drives one of the strongest C IV-absorbing winds in a BALQSO?*".

GEMINI-N Proposal, *(Band-2), PI Panda*, 3.14h, "*What drives one of the strongest C IV-absorbing winds in a BALQSO?*".

GEMINI-N Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 5.3h, "*Unveiling the Enigmatic Double-Peaked Mysteries: Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

GEMINI-S Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 1.99h, "*Unveiling the Enigmatic Double-Peaked Mysteries: Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

NASA/IRTF Proposal, *(Band-3), PI Panda*, 43.41h, "*Unveiling the Enigmatic Double-Peaked Mysteries: Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

SOAR Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 26.67h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

SOAR Proposal, *(Band-1), PI Dias dos Santos (SP as primary co-PI)*, 19.47h, "*Probing Accretion Disk Outskirts in AGNs Through Multiwavelength Analysis*".

ESO Proposal, *PI Marziani (SP as a co-PI)*, 20h, "*Metal content of AGN outflows*".

ESO Proposal, *PI Bañados (SP as a co-PI)*, 75.75h, "*The Accretion Disc Size of two Remarkable and Distant Quasars*".

GEMINI-N Proposal, *(Band-2), PI Miranda Marques (SP as co-PI)*, 2.73h, "*Unveiling the extended emission properties of outflowing gas in compact radio galaxies*".

GEMINI-S Proposal, *(Band-2), PI Miranda Marques (SP as co-PI)*, 1.02h, "*Unveiling the extended emission properties of outflowing gas in compact radio galaxies*".

SOAR Proposal, *(Band-2), PI Panda*, 8.59h, "*Unveiling the interplay between continuum and CIV emitting regions in high-redshift AGNs*".

SOAR Proposal, *(Band-2), PI Panda*, 9h, "*Radio-mode AGN feedback caught in the act*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 19.5h, "*Tracking the variations in a newly discovered changing-look AGN*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 16h, "*Disentangling the outflowing and virialized components' variability in highly-accreting AGNs around cosmic noon*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 14.5h, "*Probing the reverberation nature of WPVS48*".

ESO Proposal, *PI Bañados (SP as a co-PI)*, 80.25h, "*Black hole mass estimation via accretion disc-luminosity relation*".

ESO Proposal, *PI Marziani (SP as a co-PI)*, 7.87h, "*Physical mechanism behind AGNs with peculiar emission profiles*".

2023 **GEMINI-N Proposal**, *(Band-2), PI Panda*, 4.85h, "*Confirming the BH mass - Coronal line strength scaling relation in Type-1 AGNs*".

NASA/IRTF Proposal, *(Band-3), PI Panda*, 18.53h, "*Confirming the BH mass - Coronal line strength scaling relation in Type-1 AGNs*".

SOAR Proposal, *(Band-1), PI Panda*, 9.24h, "*Study of the diffused continuum emission in the context of continuum reverberation mapping of AGNs*".

SOAR Proposal, *(Band-1), PI Panda*, 18h, "*Standardizing the BLR radius luminosity relation using the NIR Calcium triplet emission*".

SOAR Proposal, *(Band-2), PI Panda*, 10.3h, "*Unveiling the interplay between continuum and CIV emitting regions in high-redshift AGNs*".

SOAR Proposal, *(Band-2), PI Panda*.
"*Radio-mode AGN feedback caught in the act*"

ESO Proposal, *PI Pozo-Nuñez (SP as a co-PI)*.
"*Black hole mass estimation via accretion disc-luminosity relation*"

ESO Proposal, *PI Deconto-Machado (SP as a co-PI)*, 9h, "*Calibrating super-Eddington quasars as distance indicators*".

ESO Proposal, *PI Marziani (SP as a co-PI)*, 5h, "*Metal content of AGN outflows*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 14.5h, "*Probing the reverberation nature of WPVS48*".

SPLUS T80S/ToO-Var Proposal, *PI Panda*, 19.5h, "*Tracking the variations in a newly discovered changing-look AGN*".

GEMINI-N Proposal, *(Band-1), PI Panda*, 5.65h, "*FeLoBAL QSOs: the ultimate AGN enigma*".

GEMINI-S Proposal, *(Band-2), PI Panda*, 2.96h, "*Strong Calcium triplet emitting active galaxies in the Southern Hemisphere*".

GEMINI-S Proposal, *(Band-3), PI Panda*, 3.6h, "*Strong Calcium triplet emitting active galaxies in the Southern Hemisphere*".

GEMINI-N Proposal, *(Band-1), PI Rodríguez-Ardila (SP as primary co-PI)*, 3.4h, "*Resolving the forbidden high-ionization emission region in Coronal Line Forest Active Galactic Nuclei*".

ESO Proposal, *PI Marziani (SP as a co-PI)*, 7.87h, "*Physical mechanism behind AGNs with peculiar emission profiles*".

2022 **GEMINI-N Proposal**, *(Band-3), PI Panda*, 17.1h, "*Confirming the BH mass - Coronal line strength scaling relation in Type-1 AGNs*".

SOAR Proposal, *(Band-1), PI Panda*, 15h, "*Observing strong Calcium triplet emitting active galaxies under the CaFe Project*".

SOAR Proposal, *(Band-2), PI Dias dos Santos (SP as primary co-PI)*, 20h, "*Location and physical conditions of the FeII emitting region in active galaxies*".

GEMINI-S Proposal, *(Band-2), PI Panda*, 9.05h, "*Calibrating super-Eddington quasars as distance indicators*".

GEMINI-S Proposal, *(Band-1), PI Panda*, 2.6h, "*Calibrating super-Eddington quasars as distance indicators*".

GEMINI-N Proposal, *(Band-2), PI Panda*, 1.9h, "*Resolving the forbidden high-ionization emission region of a Coronal Line Forest Active Galactic Nucleus*".

GEMINI-N Proposal, *(Band-2), PI Marinello (SP as primary co-PI)*, 8.03h, "*The CaFe Project: probing the AGN main sequence via CaII and FeII*".

SOAR Proposal, *(Band-2), PI Cerqueira Campos (SP as a co-PI)*, 24h, "*Physical properties of the NIR emission line regions of AGNs with strong coronal emission lines*".

ESO Proposal, *PI Deconto-Machado (SP as a co-PI)*, 16h, "*Calibrating super-Eddington quasars as distance indicators*".

ESO Proposal, *PI Jiang (SP as a co-PI)*, 11.13h, "*Physical mechanism behind AGNs with peculiar emission profiles*".

ESO Proposal, *PI Martínez Aldama (SP as a co-PI)*, 10.67h, "*Super-Eddington AGN as a standard candles at z 3.4 *".

SOAR Proposal, *(Band-2), PI Dias Dos Santos (SP as a co-PI)*, 30h, "*Location and physical conditions of the FeII emitting region in active galaxies*".

ESO Proposal, *PI Jiang (SP as a co-PI)*, 10.67h, "*Physical mechanism behind AGNs with peculiar emission profiles*".

ESO Proposal, *(PI Marziani (SP as a co-PI)*, 16h, "*Nuclear Activity at Extreme Rates*".

2021 **SOAR Proposal**, *(Band-1), PI Dias Dos Santos (SP as a co-PI)*, 14h, "*FeII emitters in the Eigenvector 1 context*".

GEMINI-N Proposal, *(Band-3), PI Dias Dos Santos (SP as a co-PI)*, 6.16h, "*FeII emitters in the Eigenvector 1 context*".

GEMINI-S Proposal, *(Band-2), PI Dias Dos Santos (SP as a co-PI)*, 6.2h, "*FeII emitters in the Eigenvector 1 context*".

2019 – 2020 **ESO Proposal**, *PI Mary Loli Martínez Aldama (SP as a co-PI)*, 1.2h, "*Quasar black hole mass determination using the Photoionization Method*".

ESO Proposal, *PI Marziani (SP as a co-PI)*, 16h, "*Nuclear Activity at Extreme Rates*".

GEMINI Proposal, *(Band-1), PI Marinello (SP as primary co-PI)*, 6.6h, "*Probing metal enrichment of the BLR in AGN across the Eigenvector 1*".

2020 **Young Scientist Grant**, *Center for Theoretical Physics*, 4,000 Euros.
Title: *"The selective over-abundance of Fe atoms in highly accreting active galaxies"*

2019 **International Astronomical Union Grant**, *IAU Symposium 356, Addis Ababa, Ethiopia*, 1,500 Euros.

2018 – 2019 **Young Researcher Grant**, *Nicolaus Copernicus Astronomical Center*, 4,000 Euros.
Title: *"The origin of Fe atoms in nearby Narrow-Line Seyfert 1 galaxies"*

2018 **International Astronomical Union Grant**, *IAU Symposium 341, Osaka, Japan*, 1,000 Euros.

2018 **Young Scientist Grant**, *Center for Theoretical Physics*, 6,000 Euros.
Title: *"Testing the accretion disk temperature - Fe II strength trend in the context of Eigenvector 1"*

2017 **Young Scientist Grant**, *Center for Theoretical Physics*, 4,000 Euros.
Title: *"Quasar Main Sequence: Does the maximum disk temperature drive Eigenvector 1?"*

Publications

A complete list of publications can also be found at the NASA ADS service here
155 Publications - 2192 citations - h-index of 25

First Author Papers

2026 **AGN Variability with Rubin Observatory in the 2030s**.
Panda, S.; Pozo Nuñez, F.; Gonçalves, H.; et al. 2026, Invited review, The Revista Mexicana de Astronomía y Astrofísica (in press)

2025 **Feeding frenzy in the mighty black holes: what we could learn from them?**.
Panda, S.; Gonçalves, H.; Storchi-Bergmann, T.; et al. 2025, Invited review, Contributions of the Astronomical Observatory Skalnaté Pleso (in press)

2024 **Unveiling the quasar main sequence: illuminating the complexity of active galactic nuclei and their evolution**, (cited:7).
Panda, S.; 2024, Invited review, Frontiers in Astronomy and Space Sciences, 51, 1479874

Probing the C IV Continuum Size–Luminosity Relation in Active Galactic Nuclei with Photometric Reverberation Mapping, (cited:7).
Panda, S.; Pozo Nuñez, F.; Bañados, E.; & Heidt, J.; 2024, The Astrophysical Journal Letters, 968, 2

Changing-Look AGNs – I. Tracking the transition on the main sequence of quasars, (cited:48).
Panda, S. & Śniegowska, M.; 2024, The Astrophysical Journal Supplement Series, 272, 13

Virial Black Hole Masses for Active Galactic Nuclei behind the Magellanic Clouds, (cited:9).
Panda, S.; Kozłowski, S.; Gromadzki, M.; et al.; 2024, The Astrophysical Journal Supplement Series, 272, 11

Spectral variability studies in Active Galactic Nuclei: Exploring continuum and emission line regions in the age of LSST and JWST, (cited:6).
Panda, S.; Marziani, P.; Czerny, B.; Rodríguez-Ardila, A.; & Pozo Nuñez, F.; 2023, Invited review, Universe, 9(12), 492

High Eddington quasars as discovery tools: current state and challenges, (cited:25).
Panda, S. & Marziani, P.; 2023, Review, Frontiers in Astronomy and Space Sciences, 10, 1130103

2022 **Parameterizing the AGN radius – luminosity relation from the Eigenvector 1 viewpoint**, (cited:14).
Panda, S.; 2022, Frontiers in Astronomy and Space Sciences: Rising Stars, 8, 4

Taming the derivative: diagnostics of the continuum and Hβ emission in a prototypical Population B active galaxy, (cited:6).
Panda, S.; Bon, E.; Marziani, P.; & Bon, N.; 2022, Astronomische Nachrichten, 343, 91

2021 **The CaFe Project: Optical Fe II and Near-Infrared Ca II triplet emission in active galaxies: synthetic EWs, co-dependence between cloud sizes and metal content**, (cited:45).
Panda, S.; 2021, Astronomy & Astrophysics, 650, A154

2020 **The CaFe Project: Optical Fe II and Near-Infrared Ca II triplet emission in active galaxies: (I) Photoionization modeling**, (cited:32).
Panda, S.; Martínez-Aldama, M.L.; Marinello, M.; et al. 2020, The Astrophysical Journal, 902, 1

Main trends of the quasar main sequence – effect of viewing angle, (cited:18).
Panda, S.; Marziani, P. & Czerny, B.; 2020, Contributions of the Astronomical Observatory Skalnaté Pleso, vol. 50, no. 1, p. 293-308

2019 **Current and future applications of Reverberation-mapped quasars in Cosmology**, (cited:46).
Panda, S.; Martínez-Aldama, M.L. & Zajaček, M.; 2019, Frontiers in Astronomy and Space Sciences, 6, 75

The Quasar Main Sequence Explained by the Combination of Eddington Ratio, Metallicity, and Orientation, (cited:108).
Panda, S.; Marziani, P. & Czerny, B.; 2019, The Astrophysical Journal, 882, 2

CLOUDY view of the warm corona, (cited:42).
Panda, S.; Czerny, B.; Done, C.; et al. 2019, The Astrophysical Journal, 875, 2

2018 **Modelling of the quasar main sequence in the optical plane**, (cited:89).
Panda, S.; Czerny, B.; Adhikari, T.P.; et al. 2018, The Astrophysical Journal, 866, 115

2017 **The Physical Driver of the Optical Eigenvector 1 in Quasar Main Sequence**, (cited:18).
Panda, S.; Czerny, B.; Wildy, C.; 2017, Frontiers in Astronomy and Space Sciences, 4, 33

Co-authored Papers

2026 **NOCTURNE. I. The radio spectrum of narrow-line Seyfert 1 galaxies**.
Berton, M.; et al. (incl. *Panda, S.*); 2026, Astronomy & Astrophysics (in press)

Evidence for a Stratified Accretion Disk Wind in AGN.
Marziani, P.; Bon, E.; *Panda, S.*; et al.; 2026, Contributions of the Astronomical Observatory Skalnaté Pleso (in press)

Galaxy evolution in compact groups - III. Structural analysis of galaxies and dynamical state of non-isolated compact groups, (cited:1).
Montaguth, G. P.; et al. (incl. *Panda, S.*); 2026, The Astrophysical Journal (in press)

HALO I: Photometric continuum reverberation mapping of Fairall 9.
Mandal, A. K.; et al. (incl. *Panda, S.*); 2026, Astronomy & Astrophysics (in press)

Predicting Quasar Counts Detectable in the LSST Survey, (cited:1).
Li, G.; et al. (incl. *Panda, S.*); 2026, The Astrophysical Journal (in press)

Do Low-Mass, Low-Luminosity AGNs Deviate from the Quasar Main Sequence?.
Sharma, H.; Jha, V. K.; Chand, H.; & *Panda, S.*; 2026, Monthly Notices of the Royal Astronomical Society (in press)

Scalable and Robust Multiband Modeling of AGN Light Curves in Rubin-LSST, (cited:1).
Yu, W.; et al. (incl. *Panda, S.*); 2026, The Astrophysical Journal (in press)

Optical and cm follow-ups of the Changing-Look event in Mkn 590.
Palit, B.; et al. (incl. *Panda, S.*); 2026, Astronomische Nachrichten (in press)

VAR-PZ: Constraining the Photometric Redshifts of Quasars using Variability.
Satheesh-Sheeba, S.; et al. (incl. *Panda, S.*); 2026, Astronomy & Astrophysics (in press)

2025 **Changing-look Active Galactic Nuclei from the Dark Energy Spectroscopic Instrument. IV. Broad Emission-line Evolution Sequence among Hα, Mg II, and Hβ**.
Guo, W. J.; et al. (incl. *Panda, S.*); 2025, The Astrophysical Journal, 995, 139

Application of the FRADO model of broad line region formation to Seyfert galaxy NGC 5548 and a first step toward determining the Hubble constant, (cited:6).
Jaiswal, V. K.; et al. (incl. *Panda, S.*); 2025, Astronomy & Astrophysics, 702, A92

The CosmoVerse White Paper: Addressing observational tensions in cosmology with systematics and fundamental physics, (cited:308).
Di Valentino, E.; et al. (incl. *Panda, S.*); 2025, Physics of the Dark Universe, 49, 101965

Accretion disc reverberation mapping in a high-redshift quasar, (cited:2).
Pozo Nuñez, F.; Bañados, E.; *Panda, S.*; & Heidt, J.; 2025, Astronomy & Astrophysics Letters, 700, L8

The spectral energy distribution of extreme population A quasars, (cited:2).
Garnica, K.; Dultzin, D.; Marziani, P.; & *Panda, S.*; 2025, Monthly Notices of the Royal Astronomical Society, 540, 3289

Exploring Quasar Variability with ZTF at 0 $<$ z $<$ 3: A Universal Relation with the Eddington Ratio, (cited:4).
Benati Gonçalves, H.; *Panda, S.*; Storchi-Bergmann, T.; et al.; 2025, The Astrophysical Journal, 988, 27

Spatially resolved spectrophotometric SED modeling of NGC 253's central molecular zone: I. Star formation in extragalactic giant molecular clouds, (cited:4).
Humire, P.; et al. (incl. *Panda, S.*); 2025, Astronomy & Astrophysics, 699, A183

The Discovery and Characterization of Earth-crossing Asteroid 2024 YR4, (cited:6).
Bolin, B.; et al. (incl. *Panda, S.*); 2025, The Astrophysical Journal Letters, 984, L25

The S-PLUS Fornax Project (S+FP): Mapping Globular Clusters Systems within 5 Virial Radii around NGC 1399, (cited:3).
Lomelí-Núñez, L.; et al. (incl. *Panda, S.*); 2025, The Astronomical Journal, 169, 263

Dark and bright sides of the Broad Line Region clouds as seen in the FeII emission of SDSS RM 102, (cited:2).
Floris, A.; et al. (incl. *Panda, S.*); 2025, Astronomy & Astrophysics, 697, A23

New Theoretical Fe II Templates for Bright Quasars, (cited:14).
Pandey, A.; et al. (incl. *Panda, S.*); 2025, The Astronomical Journal Supplement Series, 277, 36

Galaxy evolution in compact groups: II. Witnessing the influence of major structures in their evolution, (cited:7).
Montaguth, G. P.; et al. (incl. *Panda, S.*); 2025, Astronomy & Astrophysics, 696, A240

Mapping Hα excess candidate point sources in the southern hemisphere using S-PLUS data, (cited:3).
Gutiérrez-Soto, L. A.; et al. (incl. *Panda, S.*); 2025, Astronomy & Astrophysics, 695, A104

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2025 **Connecting disc-corona physics and ionised outflows in AGN in the 2040s**.
Bisogni, S.; et al. (incl. *Panda, S.*); 2025, ESO Expanding Horizons initiative White Paper

The evolution of obscured AGN across cosmic time – A large quasar survey for the 2040s.
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Śniegowska, M.; et al. (incl. *Panda, S.*); 2024, Proceedings of IAU Symposium 378: Black hole winds at all scales, 378, 95

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Panda, S.; Czerny, B.; Wildy, C. & Śniegowska, M.; 2019, 3rd Cosmology School, Introduction to Cosmology. Proceedings of the Polish Astronomical Society, Vol. 9, pp.199-202

2018 **Testing the physical driver of Eigenvector 1 in Quasar Main Sequence**, (cited:2).
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Śniegowska, M.; Czerny, B. & *Panda, S.*; 2018, XXXVIII Polish Astronomical Society Meeting, Proceedings of the Polish Astronomical Society, Vol. 7, pp.258-260

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Śniegowska, M.; Hryniewicz, K.; Czerny, B. & *Panda, S.*; 2018, Proceedings of Science, Revisiting narrow-line Seyfert 1 galaxies and their place in the Universe (NLS1-2018), 52

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2017 **The physical driver of Eigenvector 1 in Quasar Main Sequence**.
Panda, S.; Czerny, B., et al.; 2017, Quasars at all Cosmic Epochs, 40

2015 **Probing the physics of Seyfert galaxies using their emission-line regions**.
Shastri, P.; et al. (incl. *Panda, S.*); 2015, AIP Conference Proceedings 1697, 110002

Invited Talks / Seminars

2025 **Observations and physics of NLS1 galaxies: AGN at their extreme**, *ESO/Santiago, Chile*, (Invited Talk).

Universidad Nacional Autónoma de México, *Mexico City, Mexico*, (Institute Colloquium).

ZIHUAGN Redemption Conference: central kpc region, *Zihuatanejo, Mexico*, (Invited Talk).

15th Serbian Conference on Spectral Line Shapes (SCSLSA), *Niš, Serbia*, (Invited Talk).

Astronomical observatory Belgrade, *Belgrade, Serbia*, (Institute Colloquium).

2024 **University of La Serena**, *La Serena, Chile*, (Institute Colloquium).

Flash Talk, NOIRLab, *Tucson, USA*, (NOIRLab Colloquium).

Frontiers in Astronomy & Space Sciences: A Decade of Discovery and Advancement, *(online)*, (Invited review talk).

2023 **Max-Planck-Institut für Astronomie (MPIA)**, *Heidelberg, Germany*, (Institute Colloquium).

Heidelberg Institute for Theoretical Studies (HITS), *Heidelberg, Germany*, (Institute Colloquium).

Center for Theoretical Physics, *Polish Academy of Sciences, Warsaw, Poland*, (Institute Colloquium).

14th Serbian Conference on Spectral Line Shapes in Astrophysics, *Bajina Bašta, Serbia*, (Invited Talk).

Departamento de Astronomia do Instituto de Física da UFRGS, *Rio Grande do Sul, Brazil*, (Institute Colloquium).

Instituto de Astronomia, Geofísica e Ciências Atmosféricas, University of São Paolo, *São Paolo, Brazil*, (Institute Colloquium).

2022 **Nicolaus Copernicus Astronomical Center**, *Toruń, Poland*, (Institute Colloquium).

Space Telescope Science Institute (STScI), *Baltimore, USA*, (Institute Colloquium, online).

Lunds Observatory, *Sweden*, (Invited Talk - online).

2021 **40$^{\text{th}}$ Anniversary of the Center for Theoretical Physics**, *Polish Academy of Sciences, Warsaw, Poland*, (Invited Talk).

2020 **Center for Theoretical Physics**, *Polish Academy of Sciences, Warsaw, Poland*, (Institute Colloquium - online).

National Institute for Space Research, *São José dos Campos, São Paolo, Brazil*, (Invited Talk - online).

University of São Paolo, *São Paolo, Brazil*, (Invited Talk - online).

National Laboratory for Astrophysics, *Itajubá, Brazil*, (Invited Talk - online).

Nicolaus Copernicus Astronomical Center, *Toruń, Poland*, (Institute Colloquium).

2019 **National Laboratory for Astrophysics**, *Itajubá, Brazil*, (Institute Colloquium).

Institute of High Energy Physics, Chinese Academy of Sciences, *Beijing, China*, (Invited Talk).

2018 **National Center for Nuclear Physics**, *Warsaw, Poland*, (Institute Colloquium).

National Astronomical Observatory, *Rio de Janeiro, Brazil*, (Institute Colloquium).

Calan Observatory, *Santiago, Chile*, (Institute Colloquium).

European Southern Observatory, *Vitacura, Santiago, Chile*, (Invited Talk).

Contributed Talks / Posters

2026 **RAPID Response: Hot-wiring the Next Generation of Time-Domain Science**, *Caltech, USA*, (Contributed Talk).

2025 **Highly accreting supermassive black holes across all cosmic times: from the local Universe to cosmic dawn**, *ESO/Santiago, Chile*, (Contributed Talk).

Rubin LSST AGN Summer Meeting 2025, *Durham, UK*, (Contributed Talk).

Third International Symposium of Science with the SOAR Telescope, *INPE, Brazil/MSU, Michigan*, (Sessional Talk).

245$^{\text{th}}$ Meeting of the American Astronomical Society, *National Harbor, MaryLand, USA / online*, (Sessional Talk).

Rubin Community Workshop 2025, *SLAC, Menlo Park, USA*, (Contributed Talk).

2024 **LSST@LATAM**, *La Serena, Chile*, (Contributed Talk).

AGN XV meeting, *Padova, Italy*, (Contributed Talk).

Enabling Astronomical Transient discoveries in the Rubin era: the Fink-Brazil Workshop, *CBPF, Rio de Janeiro*, (Contributed Talk).

Rubin Community Workshop 2024, *SLAC, Menlo Park, USA*, (Contributed Talk).

2023 **18th Southern Photometric Local Universe Survey (S-PLUS) Collaboration Meeting**, *Observatorio Nacional, Rio de Janeiro*, (Contributed Talk).

2022 **NBIA Workshop on Radiative Transfer in Astrophysics**, *hybrid*, (Contributed Talk).

Rubin Observatory LSST@Europe4, *online*, (Contributed Talk).

17th Southern Photometric Local Universe Survey (S-PLUS) Collaboration Meeting, *CBPF, Rio de Janeiro*, (Contributed Talk).

XLV Reunião Anual da Sociedade Astronômica Brasileira, *online*, (Sessional Talk).

XLV Reunião Anual da Sociedade Astronômica Brasileira, *online*, (Contributed Talk).

XLV Reunião Anual da Sociedade Astronômica Brasileira, *online*, (Contributed Poster).

Large-Volume Spectroscopic Analyses of AGN and Star-Forming Galaxies in the Era of JWST, *online*, (Contributed Poster).

Quasars and Galaxies through Cosmic Time, *online*, (Contributed Talk).

2021 **AstroInformatics 2021**, *online*, (Poster Talk).

Crimean 2021 AGN Conference, Galaxies with Active Nuclei on Scales from Black Hole to Host Galaxy, *online*, (Contributed Talk).

13$^{\mathrm{th}}$ Serbian Conference on Spectral Lines Shapes in Astrophysics, *online*, (Contributed Talk).

XL Polish Astronomical Society Meeting, *Szczecin, Poland*, (Contributed Talk).

XL Polish Astronomical Society Meeting, *Szczecin, Poland*, (Poster Talk).

3$^{\mathrm{rd}}$ Conference of Young Researchers at CAMK-PAN, *online*, (Contributed Talk).

2020 **Supermassive Black Holes Conference**, *online*, (Contributed Talk).

19th Serbian Astronomical Conference, *online*, (Contributed Talk).

2$^{\mathrm{nd}}$ Conference of Young Researchers at CAMK-PAN, *online*, (Contributed Talk).

236$^{\mathrm{th}}$ Meeting of the American Astronomical Society, *online*, (Sessional Talk).

Meeting of Young Astronomers, *Warsaw, Poland*, (Contributed Talk).

2019 **IAU Symposium 356: Nuclear Activity in Galaxies across Cosmic Time**, *Addis Ababa, Ethiopia*, (Contributed Talk).

Mapping Central Regions of Active Galactic Nuclei, *Guilin, China*, (Contributed Talk).

XXXIX Polish Astronomical Society Meeting, *Olsztyn, Poland*, (Contributed Talk).

XXXIX Polish Astronomical Society Meeting, *Olsztyn, Poland*, (Poster Talk).

Quasars in Crisis, *Edinburgh, Scotland*, (Contributed Talk).

European Week of Astronomy and Space Sciences (EWASS) S2: Quasars in Cosmology, *Lyon, France*, (Sessional Talk).

1$^{\mathrm{st}}$ Conference of Young Researchers at CAMK-PAN, *Warsaw, Poland*, (Contributed Talk).

12$^{\mathrm{th}}$ Serbian Conference on Spectral Line Shapes in Astrophysics, *Vrdnik, Serbia*, (Sessional Talk).

2018 **Slim Accretion Disk Workshop**, *Warsaw, Poland*, (Contributed Talk).

Breaking the Limits 2018: Super Eddington Accretion onto Compact Objects, *Cagliari, Sardinia*, (Sessional Talk).

Advanced School: The current and future observing facilities, *Belgrade, Serbia*, (Contributed Talk).

PhD Summer School: SMBH and their host galaxies, *Asiago, Italy*, (Contributed Talk).

4$^{\text{th}}$ Indo-French Astronomy School: Spectroscopy 2D-3D, *Lyon, France*, (Contributed Talk).

34$^{\text{th}}$ IAP conference: Massive black holes in evolving galaxies: from quasars to quiescence, *Paris, France*, (Contributed Talk).

Annual Ph.D. Seminar at CAMK-PAN, *Warsaw, Poland*, (Contributed Talk).

European Week of Astronomy and Space Sciences (EWASS), *Liverpool, England*, (Poster Talk).

Revisiting Narrow-line Seyfert 1 galaxies and their place in the Universe, *Padova, Italy*, (Poster Talk).

2017 **ESO Science Coffee**, *ESO, Garching, Germany*, (Coffee Talk).

XXXVIII Polish Astronomical Society Meeting, *Zielona Góra, Poland*, (Contributed Talk).

XXXVIII Polish Astronomical Society Meeting, *Zielona Góra, Poland*, (Poster Talk).

European Week of Astronomy and Space Sciences (EWASS), *Prague, Czech Republic*, (Poster Talk).

Annual Ph.D. Seminar at CAMK-PAN, *Warsaw, Poland*, (Contributed Talk).

Quasars at All Cosmic Epochs, *Padova, Italy*, (Best Poster Prize Talk).

Schools and Workshops

2025 **La Serena Rubin Workshop**, *La Serena, Chile*, Scientific Organizing Committee.

Korea GMT Gemini Proposal Writing Workshop, *(KASI, South Korea/online)*, Scientific Organizing Committee.

2024 **Rubin Data Preview-0 Data Academy School**, *(online)*.

ESO Online Workshop – Hey GPT! Can you help me understand the Universe?, *(online)*.

Classifying Galaxies from Big Data Workshop, *INPE, São José dos Campos, Brazil*.

2023 **The Stratospheric Observatory For Infrared Astronomy (SOFIA) School 2023**, *(online)*.

Rubin Data Preview-0 Virtual Summer School, *(online)*.

Rubin IDAC Technical Workshop, *(online)*.

2022 **Zwicky Trasient Facility Summer School**, *(online)*.

Vera Rubin LSST Data Preview-0, *(online)*.

SED fitting mini Workshop, *(online)*, tutor.

XMM-Newton 2022 Science Workshop, *(ESAC Madrid/online)*.

X-ray Astronomy School, *(online)*.

What Drives the Growth of Black Holes? Workshop, *(Reykjavik/online)*.

2021 **Vera Rubin LSST Data Preview-0**, *(online)*.

IAA-CSIC Severo Ochoa School on Machine Learning, Big Data, and Deep Learning in Astronomy (SOMACHINE 2021), *(online)*.

Vera Rubin SCOC Workshop, *(online)*.

2020 **GROWTH Astronomy School 2020**, *(online)*.

Vera Rubin LSST Stack Club, *(online)*.

2019 **1$^{\text{st}}$ IAA-CSIC Severo Ochoa School on Statistics, Data Mining and Machine Learning**, *IAA, Granada, Spain*.

2018 **Slim Accretion Disk Workshop**, *Warsaw, Poland*.

Advanced School: The current and future observing facilities, *Belgrade, Serbia*.

PhD Summer School: SMBH and their host galaxies, *Asiago, Italy*.

4th Indo-French Astronomy School: Spectroscopy 2D-3D, *Lyon, France*.

2017 **3rd Asterics VO Tools School**, *ESAC, Madrid, Spain*.

CLOUDY Workshop, *Queen's University, Belfast, N. Ireland*.

3rd International Cosmology School, *Kraków, Poland*.

Observing with ESO facilities Workshop, *Warsaw, Poland*.

Public Lectures

2021 **Quasars and cosmic distances**, *Astronarium on Youtube*.

Hubble Constant, *Astronarium on Youtube*.

2018 **What is the Main Sequence of Quasars?**, *UTINAM, Besançon, France*.

Joining the Dots - from Stars to Active Galaxies, *CAMK, Warsaw, Poland*.

2017 **Extending the Hertzsprung-Rusell Diagram: From Stars to Quasars**, *NIT, Rourkela, India*.

Professional Memberships, Service Work and Meeting Organization

2025 – **Vera Rubin Observatory, Legacy Survey of Space and Time - AGN Science Collaborations**, *Full Member*.

2025 – **Vera Rubin Observatory, Legacy Survey of Space and Time - AGN Science Collaborations**, *Chair of AGN Watchlist task force*.

2025 – **Stage-5 Cosmology Project Spec-S5 - Survey Planning**, *Member*.

2025 – **Dark Energy Spectroscopic Instrument-II (DESI-II) - Survey Planning**, *Member*.

2025 – **Dark Energy Spectroscopic Instrument (DESI) - Time Allocation Committee**, *Core Member*.

2025 – **Dark Energy Spectroscopic Instrument (DESI) - Operations**, *Support Observing Specialist*.

2025 – **Dark Energy Spectroscopic Instrument (DESI) - Imaging Surveys**, *IBIS Observer*.

2024 – **Dark Energy Spectroscopic Instrument (DESI) - Galaxy and Quasar Physics Working Group**, *Science Team Member*.

2023 – **Wide-field Spectroscopic Telescope (WST) Collaboration**, *Associate Member*.

2022 – **Vera Rubin Observatory, Legacy Survey of Space and Time - Transient and Variable Stars Collaboration**, *Associate Member*.

Southern Photometric Local Universe Survey (S-PLUS) Collaboration, *Science Team Member*.

2019 – **Maunakea Spectroscopic Explorer - Active Galactic Nuclei Science Collaboration**, *Associate Member*.

Vera Rubin Observatory, Legacy Survey of Space and Time - AGN and Dark Energy Science Collaborations, *Associate Member*.

Vera Rubin Observatory, Legacy of Space and Time - Polish Consortium, *Associate Member and Outreach Coordinator*.

Vera Rubin Observatory, Legacy of Space and Time - Science Platform Support Team, *Associate Member*.

Review Editor **Frontiers in Astronomy and Space Sciences**, *Extragalactic Astronomy*.

Guest Editor **Frontiers in Astronomy and Space Sciences**, *Extragalactic Astronomy*.

Peer Reviewer **Nature Communications**.

Nature Astronomy.

Astronomy & Astrophysics.

The Astrophysical Journal.

Monthly Notices of the Royal Astronomical Society.

Advances in Space Research.

Frontiers in Astronomy and Space Sciences.

MDPI/Galaxies.

NOIRLab Time Allocation Committee, *Gemini/SOAR/Blanco observatories*.

DOT Time Allocation Committee, *Devasthal Optical Telescope, Nainital, India*.

Polish Astronomical Society.

Thesis Committee

Mgr. Denimara Dias dos Santos, *PhD candidate*, INPE, Brazil.

2025 **La Serena Rubin Workshop**, *La Serena, Chile*, Scientific Organising Committee.

Korea GMT Gemini Proposal Writing Workshop, *(KASI, South Korea/online)*, Scientific Organizing Committee.

2023 **18th Southern Photometric Local Universe Survey (S-PLUS) Collaboration Meeting**, *Scientific Organising Committee*.

2022 **17th Southern Photometric Local Universe Survey (S-PLUS) Collaboration Meeting**, *Scientific Organising Committee*.

2020 **Meeting of Young Astronomers, Warsaw, Poland**, *Local Organising Committee*.

2019 **IAU Symposium 356: Nuclear Activity in Galaxies across Cosmic Time, Addis Ababa, Ethiopia**, *part of the Organising Committee*.

Science Festival, Polish Astronomical Society, Warsaw, Poland, *Local Organising Committee*.

2018 **Young Astronomer's Conference, Warsaw, Poland**, *Local Organising Committee*.

Slim Accretion Disk Workshop, Warsaw, Poland, *Local Organising Committee*.

Science Festival, Polish Astronomical Society, Warsaw, Poland, *Local Organising Committee*.

2017 **Science Festival, Nicolaus Copernicus Astronomical Center, Warsaw, Poland**, *Local Organising Committee*.

Teaching / Education Activities

2025 **Panel member, Korea GMT Proposal Writing Workshop**, *KASI, Daejeon, Korea*.

2023 **Extragalactic Astrophysics lecture course (Graduate level)**, *INPE, Brazil*.

NOILAB Stories, *Accretion Disks: How Big Are They Really?*.

2019 **IAU100: Outreach in Public Schools**, *Addis Ababa, Ethiopia*.

2017 – 2022 **CAMK Open Days**, *Warsaw, Poland*.

2015 – 2016 **Teaching Assistant, Basic Astronomy Laboratory**, *NIT, Rourkela, India*.

2014 – 2016 **Mentor, Astronomy Club**, *NIT, Rourkela, India*.

Student Mentored/Co-mentored

2026 – **Diego Martinez Collipal**, *AGN Variability metrics for ZTF and LSST*, Postgraduate Student, University of Concepcion, Chile.

2026 – **Mariangella Camus**, *Database of changing-look AGNs*, Postgraduate Student, University of Valparaiso, Chile.

2026 – **Valentina Zepeda Arancibia**, *High-resolution iron template for AGNs with GHOST*, Postgraduate Student, University of La Serena, Chile.

2025 – **Raquel Ruiz Valença**, *Benchmarking high-redshift quasar detection with S-PLUS 12-band photometry*, PhD Student, Institute of Astronomy, Geophysics and Atmospheric Sciences, University of São Paulo, Brazil.

2025 – **Shreya Sareen**, *Identifying Doppelgänger Active Galactic Nuclei across redshifts from spectroscopic surveys*, Undergraduate Student, University of California Berkeley, USA.

2025 – **Vitor Guez**, *Power-spectral density studies of variable AGNs*, Postgraduate Student, Federal University of Rio Grande do Sul, Brazil.

2025 – **Anahis De La Barra Manzano**, *A NIR Spectroscopic Study of Bright AGN Targets for GRAVITY+/VLTI Interferometry*, Postgraduate Student, University of Concepcion, Chile.

2024 – 2026 **Luiz Matheus Dourado Santos**, *Quasars with broad double-peaked lines: nature and variability*, Postgraduate Student, Federal University of Rio Grande do Sul, Brazil.

2024 – 2025 **Hygor Benati Gonçalves**, *Exploring Quasar Variability with the Zwicky Transient Facility*, Postgraduate Student, Federal University of Rio Grande do Sul, Brazil.

2023 – 2025 **Barbara Miranda Marques**, *Powerful Outflows of Compact Radio Galaxies*, PhD Student, INPE, Brazil.

2022 – 2024 **Fernando Cerqueira Campos**, *A pilot study of Coronal Line Forest AGNs in the NIR*, PhD Student, INPE, Brazil.

2021 – 2025 **Denimara Dias Dos Santos**, *Modelling the near-infrared FeII emission in highly accreting quasars*, PhD Student, INPE, Brazil.

2021 **Ewa Julia Skorek**, *Metallicity indicators tracing quasar evolution across cosmic time*, Graduate Student, Warsaw University, Poland.

2019 – 2021 **Denimara Dias Dos Santos**, *Near-Infrared line emission modelling in nearby quasars*, Postgraduate Student, INPE, Brazil.

2018 – 2019 **Richa Yadav**, *Multi-wavelength Study of Active Galaxies*, Graduate Student, Lucknow University, India.

2016 – 2018 **Marzena Śniegowska**, *Quasar Main Sequence and Fe II emission in the optical and UV*, Postgraduate Student, Warsaw University, Poland.

Prior to Ph.D.

July 2014 – May 2016 **GALEX Observations of Planetary Nebulae**, Masters Thesis [1], under Prof. A.C. Pradhan, NIT Rourkela, India.

Utilising direct measurements at 10% level of peak surface brightness, Gaussian de-convolution and second moment de-convolution to measure the angular dimensions of 108 PNe from the GR6-GR7 data releases of GALEX with sizes greater than 8". Studied their morphological features, estimated physical parameters of the central star and made a multi-wavelength angular size-luminosity comparison for these sources.

May 2015 – July 2015 **Galaxy Mergers in Local Universe** [2], MITACS Globalink Summer Research Fellow, under Prof. S.E. Ellison, University of Victoria, Canada.

Morphological classification of nearby galaxy mergers , analysing the trigger of AGN phase in them, leading to enhancements in the star-formation rates. Studied and analyzed SDSS-WISE images of merging galaxies at different epochs.

May 2014 – July 2014 **Physics of Seyfert Galaxies** [3], Indian Academy of Sciences Summer Research Fellow, under Prof. P. Shastri, Indian Institute of Astrophysics, Bengaluru, India.

The study focused on a sample of 128 Active Galactic Nuclei under the S7 survey (Siding Spring Southern Seyfert Spectrographic Snapshot Survey). We characterize the physical properties of the sample with multi-wavelength data.

November 2013 – January 2014 **Computing Thermodynamic Quantities for a System of Hadronic Particles with Masses under 2 GeV/c^2** [4], NISER Winter Research Intern, under Prof. B. Mohanty, NISER, Bhubaneswar, India.

May 2012 – December 2013 **Probing the Conformation of Bovine Serum Albumin and Dextran using Laser Light Scattering** [5], INSPIRE Research Intern, under Prof. S. Jena, NIT Rourkela, India.

Skills

Languages

Hindi	**Native**	
Odia	**Native**	
English	**Native**	*TOEFL (Computer Based) Score: 114/120 (May 2016)*
Portuguese	**Intermediate**	
Spanish	**Intermediate**	
Polish	**Beginner**	

Computer Skills

Scientific Programming	Python, Fortran, shell scripting, R, C/C++, IDL
Softwares	CLOUDY, TOPCAT, CIGALE, BAGPIPES, DS9, IRAF/PyRAF, SpeXtool/XDGNIRS, ESO-Reflex, STOKES, SKIRT, JAVELIN, DCF/zDCF, PyROA, CARMA, PyQSOFit, EMCEE, XSPEC, GitHub, Docker, Inkscape, Stellarium, MS-Office/Word/Excel/Powerpoint

References

1 **Prof. Bożena Czerny (*PhD Supervisor*)** *Center for Theoretical Physics, Polish Academy of Sciences, Warsaw, Poland*
Email: bcz@cft.edu.pl

2 **Dr. Paola Marziani (*Research Collaborator*)** *INAF-Observatory of Padova, Italy*
Email: paola.marziani@inaf.it

3 **Dr. Joanna Thomas-Osip (*Gemini-S Head of Sc. Ops.*)** *International Gemini Observatory, NSF/NOIRLab, La Serena, Chile*
Email: joanna.thomas@noirlab.edu

4 **Dr. Arjun Dey (*DESI Mentor*)** *NSF/NOIRLab, Tucson, USA*
Email: arjun.dey@noirlab.edu

5 **Prof. Alberto Rodríguez-Ardila (*former Postdoctoral Mentor*)** *National Laboratory for Astrophysics, Itajubá, Brazil*
Email: aardila@lna.br

6 **Dr. Stephanie Juneau (*DESI Mentor*)** *NSF/NOIRLab, Tucson, USA*
Email: stephanie.juneau@noirlab.edu

7 **Prof. Claudia Mendes de Oliveira (*Research Collaborator*)** *Institute of Astronomy, Geophysics and Atmospheric Sciences, University of São Paulo, Brazil*
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