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POSITIONS

07.2024 - now

Monash University, Melbourne, Australia
Research Fellow

EDUCATION

2024

University of Warsaw, Poland

Faculty of Physics, Astronomical Observatory

PhD in astrophysics

Supervisor: Prof. Tomasz Bulik

PhD thesis: *Massive black holes as sources of low-frequency gravitational waves: theoretical modelling and observational techniques*

2017

Jagiellonian University, Krakow, Poland

Faculty of Physics, Astronomy and Applied Computer Science

Master degree in astronomy

Supervisor: Prof. Krzysztof Chyży

Master thesis: *Capabilities of radio pulsar observations using LOFAR station PL611 in Lazy*

2016

Jagiellonian University, Krakow, Poland

Faculty of Physics, Astronomy and Applied Computer Science

Bachelor degree in astronomy

Supervisor: Prof. Andrzej Baran

Bachelor thesis: *Searching for exoplanets harbored by subdwarf B stars*

SCHOOLS AND INTERNSHIPS

11 - 22.07.2022

VIPER Summer School on PTA GW Astrophysics, Vanderbilt University, Nashville, USA

03 - 07.05.2021

Workshop on Gravitational Wave Astrophysics for Early Career Scientists, Lorentz Center@Virtual

24.09 - 25.10.2019

Multi-Messenger Astrophysics in the Gravitational Wave Era - long term workshop, Kyoto, Japan

06 - 07.09./2019

Workshop *Astrophysics with GW detections*, Warsaw, Poland

11 – 15.03.2019 (Received COST Action trainee grant)

PHAROS PhD Training School: *Multi-messenger physics and astrophysics with compact objects*, FSU, Jena, Germany

18 – 24.02.2018

Training in methods of data reduction from International LOFAR Telescope (ILT), ASTRON, Dwingeloo, Netherlands

16 – 20.10.2017

VII European Radio Interferometry School (*ERIS 2017*), Dwingeloo, Netherlands

22.08.2016 - 31.08.2016

Internship *Astrophysical and technological aspects of radio pulsar observations on single LOFAR station*, University of Zielona Gora, Poland

12.08.2013 – 21.08.2013

Astronomy internship *Variable 2013*, Roztoky, Slovakia

CONFERENCES, TALKS AND POSTERS

13-15.11.2023 (talk)

Fourth European Physical Society Conference on Gravitation: Black Holes, Valencia, Spain

Talk: Massive black hole binaries as sources of gravitational waves and X-shape radio galaxies

10-14.07.2023 (poster)

European Astronomical Society Annual Meeting, Kraków Poland

19-23.06.2023 (talk)

IPTA@Australia Science Meeting, Port Douglas, Australia

Talk: Modelling co-evolution of galaxies and massive black holes: implications for mergers and their signatures

13-16.06.2023 **INVITED TALK**

IPTA student workshop, Sydney, Australia

Talk: Wide-band timing

14.02.2023 **INVITED TALK**

Particle Astrophysics in Poland, Kraków, Poland

Talk: *Pulsar Timing Arrays: highlights from nHz gravitational wave astronomy*

05 - 09.12.2022 (poster)

Gravitational Wave Physics and Astronomy Workshop (GWPAW), Melbourne, Australia

22 - 24.06.2022 (talk)

International Pulsar Timing Array (IPTA) Catch-up Meeting, online

20 - 21.06.2022 (talk and poster)

Copernican seminar for graduate students, Toruń, Poland

30.01 - 06.02.2022 (talk and poster)

56th Rencontres de Moriond 2022 (Gravitation), La Thuile, Italy

17.11.2021 (colloquium)

Wednesday Colloquium at the Nicolaus Copernicus Astronomical Center, Warsaw, Poland

Talk: *Searching for low frequency gravitational waves with Pulsar Timing Experiments*

20.09 - 21.09.2021 **INVITED TALK**

Second Edition of the Virtual Scientific Conference of the Ochota Campus (online)

Talk: *Predictions for gravitational wave detectors based on SHARK galaxy simulations*

13.09 - 17.09.2021 (talk and poster)

40th Polish Astronomical Society Meeting (online)

Talk: *Predictions for LISA and PTA based on SHARK galaxy simulations*

Poster: *Wideband timing of PPTA UWL data*

30.08 - 03.09.2021 (talk)

Global meeting of the GWVerse COST action (Lisbon, Portugal)

Talk: *Predictions for LISA and PTA based on SHARK galaxy simulations*

19.07 - 23.07.2021 (talk and poster)

14th Edoardo Amaldi Conference on Gravitational Waves (online)

Talk: *Predictions for LISA and PTA based on SHARK galaxy simulations*

Poster: *Wideband timing of PPTA UWL data*

28.06 - 02.07.2021 (poster)

European Astronomical Society Annual Meeting (online)

Poster: *Predictions for LISA and PTA based on SHARK galaxy simulations*

21 - 25.06.2021 (talk)

IPTA@Zoom (International Pulsar Timing Array Annual Meeting (online)

Talk: *Wideband timing of PPTA UWL data*

01 - 12.03.2021 (poster)

Gravitational waves: a new messenger to explore the universe, Institut Henri Poincaré, Paris (online)

Poster: *Predictions for LISA and PTA based on SHARK galaxy simulations*

17.11.2020 (talk)

Institute Colloquium, Astronomical Observatory, University of Warsaw, Poland

Talk: *Gravitational wave search with Pulsar Timing Arrays*

22 - 23.09.2020 (talk and poster)

International Pulsar Timing Array (IPTA) Catch-up meeting, Australia (online)

Talk: *Wide-band timing with the Parkes UWL receiver*

Poster: *Probing black hole merger history with gravitational waves*

07 - 09.09.2020 (talk)

Copernican e-seminar for graduate students, Poland (online)

Talk: *Supermassive black holes in the eyes of gravitational wave detectors*

01 - 03.09.2020 (poster)

The 13th International LISA Symposium (online)

Poster: *LISA detectability of supermassive black hole binaries from semi-analytic model of galaxy evolution*

30.06 - 01.07.2020 (poster)

First Virtual Scientific Conference of Campus Ochota, Poland (online)

Poster: *Probing black hole merger history with gravitational waves*

Best poster award

09 - 12.09.2019 (poster)

XXXIX Polish Astronomical Society Assembly, Olsztyn, Poland

Poster: *Flux density measurements of GPS pulsar J1740+1000 with LOFAR*

17 - 19.05.2019 (talk)

KSAKN (student conference) 2019, Poznań, Poland

Talk: *Binary neutron star merger remnants in the era of multi-messenger astronomy*

Best talk award

GRANTS, AWARDS AND OTHER SCIENTIFIC ACTIVITY

01.2025

Member of the Parkes Pulsar Timing Array Steering Committee and the International Timing Array Steering Committee

2022 - 2024

PRELUDIUM grant of the Polish National Science Center (PI of the project: Formation and evolution of massive black holes)

12.2021

Teaching Award at the Faculty of Physics, University of Warsaw

14 - 18.06.2021

IPTA@Zoom School/Workshop SOC member

06.2019 - now

Observer in Parkes Observatory (Parkes Pulsar Timing Array project), Australia

02 - 06.09.2019

LSC-Virgo September Meeting LOC member, Warsaw, Poland

2018 - 2022

LIGO/Virgo Collaboration Member

2018 - 2020

H.E.S.S. Collaboration Member

2017 - 2020

Participation in SPUB grant - *Maintenance of LOFAR station in Łazy for participation in International LOFAR Telescope (ILT) program*

2017 - 2019

Collaboration in ROGUE project (Radio sources associated with Optical Galaxies and having Unresolved or Extended morphologies)

2012 - 2013

Observational Section of science club (Astronomical Observatory of Jagiellonian University) – status of an independent observer

TEACHING

10.2020 - 2022

Astronomy I course for I year bachelor students (introduction to astronomy), University of Warsaw, Poland

02.2019 - 2022

Astronomy II course for I year bachelor students (general and spherical astronomy), University of Warsaw, Poland

02.2019 - 2020

General astrophysics for II year bachelor students, University of Warsaw, Poland

02.2018 - 09.2018

General and spherical astronomy for I year bachelor students, Jagiellonian University, Krakow, Poland

LANGUAGES

Polish (native)

English (C1)

Japanese (A1)

SCIENTIFIC INTERESTS

Multi-messenger astrophysics, gravitational waves, massive black holes, pulsar timing, radio astronomy