

Amazigh OUZRIAT

JSPS Postdoctoral Fellow

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Research Interests

Gravitational waves, compact binary coalescences, cosmology, multi-messenger astronomy, black holes, neutron stars, detector characterization, LISA, Einstein Telescope, Cosmic Explorer.

Research Experience

JSPS Postdoctoral Fellow

RESCEU, The University of Tokyo

Host: Prof. Kipp Cannon

Oct 2026 – Present

Tokyo, Japan

Ph.D. Research Fellow

IP2I Lyon, Claude Bernard University Lyon 1

Thesis: *Search for Compact Binary Coalescences during the First Part of the Fourth LIGO-Virgo-KAGRA Observing Run*

Advisor: Dr. Viola Sordini

Oct 2022 – Sep 2025

Villeurbanne, France

Graduate Research Fellow

IP2I Lyon, Claude Bernard University Lyon 1

Project: *Cosmological implications of LIGO-Virgo gravitational wave observations*

Advisor: Dr. Viola Sordini

Mar 2022 – Jul 2022

Villeurbanne, France

Graduate Research Fellow

CEA Saclay IRFU

Project: *Development of a source of high-energy gamma rays induced by neutron captures for detector calibration*

Advisor: Dr. David Lhuillier

Apr 2021 – Jul 2021

Saclay, France

Laboratory Intern

CEA Saclay IRFU

Project: *Muon tomography using multiplexed Micromegas detectors and cosmic shear analysis*

Advisor: Dr. Marine Vandebrouck

Sep 2021 – Oct 2021

Saclay, France

Undergraduate Research Fellow

IP2I Lyon, Claude Bernard University Lyon 1

Project: *Physical and mathematical modeling of ion-living matter interactions*

Advisor: Prof. Michaël Beuve

Apr 2019 – Jul 2019

Villeurbanne, France

Education

Ph.D. in Gravitational-Wave Astronomy

Claude Bernard University Lyon 1

Physics & Astrophysics Doctoral School

2022 – 2025

Villeurbanne, France

M.Sc. in Fundamental Physics

Paris-Saclay University

Track: Nuclei, Particles, Astroparticles & Cosmology (NPAC)

2020 – 2022

Orsay, France

Responsibilities & Collaboration Roles

Science Case Study Team Member <i>LIGO–Virgo–KAGRA (LVK) Collaboration</i> Responsible for gravitational-wave search analyses for exceptional event papers.	2024 – 2026
Paper Writing Team Member <i>LVK Collaboration</i> Contributing to key collaboration papers, including LIGO detector characterization in O4a Open Data Paper and event validation in <i>GWTC-4: Methods</i> .	2024 – 2026
LVK Collaboration Liaison <i>LVK Collaboration</i> Liaison between Virgo Detector Characterization and Operations / Compact Binary Coalescences (CBC) groups; liaison between MBTA search pipeline and Rates & Populations group.	2023 – 2026
LVK Observing Run Operations <i>LVK Collaboration</i> Active member of Rapid Response Team for real-time GW event vetting and Catalog Duty Manager shifts during O4.	2023 – 2026

Honors & Awards

2026	JSPS Postdoctoral Fellowship for Research in Japan
2022	CNRS/IN2P3 Fellowship “Des 2 Infinis”
2021	Best Reporter Award, International Physicists’ Tournament (IPT)
2021	Institute of the Physics of the Universe Scholarship, Aix-Marseille University (<i>Declined</i>)
2021	First Place, French Physicists’ Tournament
2017	Regional First Place, Algerian Selection for International Mathematical Olympiad

Teaching Experience

Teaching Assistant <i>Claude Bernard University Lyon 1</i> Physics minor for undergraduate medical students: Optics, electromagnetism, mechanics, and mathematics.	Spring 2024, 2025 <i>PHY2000E: Fundamentals of Physics</i>
Teaching Assistant <i>Claude Bernard University Lyon 1</i> Electrostatics, magnetostatics, electromagnetic induction, and electromagnetic waves for Physics & Chemistry undergraduates.	Fall 2023, 2024 <i>PHY2021L: Electromagnetism</i>
Teaching Assistant <i>Claude Bernard University Lyon 1</i> Fundamentals of Python programming: syntax, scientific computing, statistics, and plotting.	Fall 2023 <i>TVL1212L: Introduction to Python</i>

Presentations & Seminars

Conference Talk <i>International Conference on the Physics of the 2 Infinities</i> <i>Unveiling the Sky with Gravitational Waves: Discoveries from GWTC-4</i>	Nov 2025 Tokyo, Japan
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Collaboration Talk

Virgo Collaboration Meeting

Impact of Virgo inclusion on GW sky-localization and effect of glitches

Poster Presentation

LVK Collaboration Meeting

Search for compact binary coalescences using the offline MBTA pipeline

Conference Talk

International Conference: Exploring the Dark Side of the Universe

Observations of Compact Binary Coalescences by the LVK Collaboration

Collaboration Talk

LVK Collaboration Meeting

First results of the standard MBTA offline search during O4a

Poster Presentation

LVK Collaboration Meeting

Investigating iDQ integration into the MBTA offline search

Collaboration Talk

Virgo Collaboration Meeting

Investigating iDQ integration into the MBTA offline search

Seminar

CEA Institute of Research into the Fundamental Laws of the Universe (IRFU)

Open physics problems during the International Physicists' Tournament

Feb 2025

Cascina, Italy

Sep 2024

Barcelona, Spain

Jul 2024

Noirmoutier, France

Mar 2024

Louisiana, USA

Sep 2023

Toyama, Japan

Apr 2023

Cascina, Italy

Jul 2022

Saclay, France

Publications

Co-author of **57** publications, including **36** articles in peer-reviewed journals and **52** co-authored papers within the Virgo Collaboration. Complete list available on my [iNSPiRE-HEP profile](#).

References

Dr. Viola Sordini

Institut de Physique des 2 Infinies de Lyon

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Dr. Francesco Di Renzo

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Dr. David Lhuillier

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