

GWENHAËL WILBERTS DEWASSEIGE

Centre for Cosmology, Particle Physics and Phenomenology (CP3), UCLouvain

Building Marc de Hemptinne, Chemin du Cyclotron, 2, 1348 Louvain-la-Neuve \diamond Belgium

E-mail: gwenhael.dewasseige@uclouvain.be \diamond Phone: +33 6 07 25 19 31 \diamond Birthdate: 15/12/1990

EMPLOYMENT

Assistant professor, Chargée de cours Francqui, UCLouvain, Belgium	2021-Present
Marie Skłodowska-Curie Individual Fellow, Université de Paris, France	2019 - 2021
Member of the KM3NeT Collaboration and associate member of the IceCube Collaboration Astroparticule et Cosmologie Laboratoire (APC), Université de Paris	
DIMACAV postdoc researcher and member of the KM3NeT Collaboration Astroparticule et Cosmologie Laboratoire (APC), Université Paris-Diderot	2018 - 2019

EDUCATION

Graduate student and member of the IceCube Collaboration Advisors: Kael D. Hanson and Nick van Eijndhoven Interuniversity Institute for High Energies, Vrije Universiteit Brussel Pleinlaan 2, 1050 Brussels - Belgium	2014 - 2018
---	-------------

AWARDS AND GRANTS

FNRS Wernaers Prize for Scientific Popularisation	2024
Horizon-Europe INFRA-2023-SERV-01-02 project ACME (PI for UCLouvain+WP leader, 14 Meuros)	2024-2028
IISN KM3NeT Convention (PI for UCLouvain, 200keuros, renewable)	2024-2027
Hoover Seedfund for collaborating with prof. C.Argüelles at Harvard University (PI, 18k euros)	2023-2025
Bespo POLAR grant (PI, 250keuros)	2023-2026
REINFORCE H2020-SwafS EU project (PI for UCLouvain)	2022
Francqui Start-Up Grant (PI, 200keuros)	2021-2024
IISN IceCube Convention (PI for UCLouvain, 265keuros, renewable)	2021-2025
LabEx UnivEarthS exploratory grant for the project LEAK (project leader, 16keuros/year)	2019-2021
Best poster award at the International Cosmic Ray Conference 2019, Madison, Wisconsin	2019
Balzan Fellowship, WIPAC, University of Wisconsin-Madison (declined for personal reasons)	2019
F.R.S - FNRS postdoc (<i>mandat de Chargé de recherches</i> in Belgium, 3 years, declined for personal reasons)	2019
Materials-Based Research Grant from the Center for Craft with Donald Fortescue	2019
Marie Skłodowska-Curie Individual Fellowship 2018	2019
INFN Postdoctoral fellowship (declined for personal reasons)	2019
DIM ACAV grant for the LEANOR project in collaboration with Véronique van Elewyck	2018
Young Speaker Award from the Belgian Physical Society	2018
Prize for Science Communication by the Royal Flemish Academy of Belgium	2017
Antarctica Service Medal of the United States of America	2017
IceCube Communications Certificate	2017

SELECTED PUBLICATIONS IN SCIENCE AND SCIENCE COMMUNICATION

The KM3NeT Collaboration, *Searches for neutrino counterparts from gravitational waves from the LIGO/Virgo third observing run with KM3NeT*, in press in JCAP, arXiv:2311.03804 [astro-ph.HE].

D. Fortescue, J. Mauro and **G. de Wasseige** for the KM3NeT Collaboration, *Art and Astrophysics in Conversation with KM3NeT Deep in the Mediterranean Sea*, 38th International Cosmic Ray Conference (ICRC 2023, Nagoya, Japan), PoS(ICRC2023)1621.

K. Kruiswijk and **G. de Wasseige** for the IceCube Collaboration, *Probing neutrino emission at GeV energies from astrophysical transient events with the IceCube Neutrino Observatory*, 38th International Cosmic Ray Conference (ICRC 2023, Nagoya, Japan), PoS(ICRC2023)1513.

The IceCube Collaboration, *Limits on Neutrino Emission from GRB 221009A from MeV to PeV using the IceCube Neutrino Observatory*, ApJL 946 L26 (2023), arXiv:2302.05459 [astro-ph.HE].

M. Circella and **G. de Wasseige** for the KM3NeT Collaboration, *Draw me a Neutrino: the first KM3NeT art contest*, 37th International Cosmic Ray Conference (ICRC 2021, Berlin, Germany), PoS(ICRC2021)1400.

The IceCube Collaboration, *Search for GeV Neutrino Emission During Intense Gamma-Ray Solar Flares with the IceCube Neutrino Observatory*, Phys. Rev. D 103, 102001 (2021), arXiv:2101.00610 [astro-ph.HE].

D. Fortescue and **G. de Wasseige** for the IceCube Collaboration, *Synergy Between Art and Science: Collaboration at the South Pole*, 36th International Cosmic Ray Conference (ICRC 2019, Madison, Wisconsin, USA), PoS(ICRC2019)887.

C.A. Argüelles, **G. de Wasseige**, A. Fedynitch, B.J.P. Jones, *Solar atmospheric neutrinos and the sensitivity floor for solar dark matter annihilation searches*, JCAP07(2017)024, arXiv:1703.07798 [astro-ph.HE].

K. De Vries, **G. de Wasseige**, J-M Frere, M. Vereecken, *Constraints and prospects on gravitational-wave and neutrino emissions using GW150914*, Phys. Rev. D 96, 083003 (2017), arXiv:1612.02648 [astro-ph.HE].

C. de Clercq, J. De Schauwers, **G. De Wasseige** and J. van Laer *A better communicator is always a better scientist, or the reason why every PhD student should engage in science outreach*, 35th International Cosmic Ray Conference (ICRC 2017, Busan, South Korea), PoS(ICRC2017)1075.

PROFESSIONAL ACTIVITIES

Workpackage leader of ACME HORIZON-INFRA-2023-SERV-01-02 project	2024-Present
Reviewer for APS PRX	2024-Present
Expert monitor for the AntiMatter-OTech Horizon-Europe EIC Pathfinder project	2024-Present
Academic referent for the M.A.R.S. UCLouvain missions	2023-Present
Reviewer for MSCA postdoc fellowships	2022-Present
Reviewer for NWO grants (The Netherlands)	2022-Present
Co-working group leader of the Supernova/low-energy astronomy group in IceCube	2022-Present
Belgian representative of the International Particle Physics Outreach Group (IPPOG)	2021-Present
Member of the KM3NeT Institute Board	2021-Present
Member of the IceCube Institute Board	2021-Present
Co-chair of the Outreach Committee of the KM3NeT Collaboration	2021-Present
Workpackage co-leader for the KM3NeT WP in the REINFORCE HORIZON-Europe-SwafS project	2020-Present
Member of the KM3NeT Institute Board as Early Career Scientist representative	2019-2021
Reviewer for European Physical Journal C, Astroparticle Physics Journal, World Scientific Publishing	2018-Present
Developer and coordinator of the snow-depth measurement system for IceTop	2016-2019
Developer and coordinator of a database for gravitational wave-based sub-GeV neutrino search in IceCube	2016-Present
Crew member of the IceCube South Pole summer season	2016
Developer and coordinator of the IceCube SFNews alert system for solar flares	2015-2019

SUPERVISION

Marco Scarnera, PhD student	2024-2028
<i>First catalog of neutrino energy distributions of gamma ray bursts using multi-detector and multi-energy approaches</i> , UCLouvain, Belgium	
Leonardo Ricca, PhD student	2024-2028
<i>Joint neutrino and gravitational wave studies of the transient universe</i> , UCLouvain, Belgium	
Jeffrey Lazar, postdoctoral researcher	2023-2026
<i>Agnostic beyond standard model searches</i> , UCLouvain, Belgium	

Eliot Genton, PhD student <i>Multi-energy observations of the Sun</i> , UCLouvain, Belgium	2023-2027
Per Myhr, PhD student <i>Sub-GeV neutrinos in the ice</i> , UCLouvain, Belgium	2023-2027
Emile Moyaux, MSc and PhD student <i>Theoretical Neutrino Energy Distributions for astrophysical sources</i> , UCLouvain, Belgium	2023-2028
Louis Lovat, MSc student <i>Machine learning based neutrino searches</i> , UCLouvain, Belgium	2023-2024
Christoph Raab, postdoctoral researcher <i>Realtime low-energy neutrino detection</i> , UCLouvain, Belgium	2023-2025
Matthias Vereecken, postdoctoral researcher <i>Neutrinos and gravitational waves sources</i> , UCLouvain, Belgium	2023-2025
Romain Gorski, MSc student <i>Joint neutrinos and gravitational wave searches</i> with prof. Giacomo Bruno, UCLouvain, Belgium	2022-2023
Maxime Harvengt, MSc student <i>Improving the sensitivity of IceCube to sub-GeV neutrinos</i> UCLouvain, Belgium	2022-2023
Jonathan Mauro, PhD student <i>Search for GeV neutrinos from solar flares</i> , UCLouvain, Belgium	2022-2026
Mathieu Lamoureux, postdoctoral researcher <i>Multi-detector neutrino searches from compact binary mergers</i> , UCLouvain, Belgium	2022-2025
Karlijn Kruiswijk, PhD student <i>Search for GeV neutrinos from gamma ray bursts</i> , UCLouvain, Belgium	2021-2025
Meriem Bendahman, PhD student Supervised jointly with Antoine Kouchner (U. de Paris) and Yahya Tayalati (Rabat University) <i>Evaluation of low-energy astrophysical potential of KM3NeT with deep learning techniques.</i>	2020-2023

ORGANIZATION OF SCIENTIFIC EVENTS

KM3NeT Collaboration meeting - Louvain-la-Neuve - Belgium Chair of the local organizing committee	2025
Neutrinos in the Multi-Messenger Era - Paris - France Co-chair of the scientific committee	2024
Georges Lemaître Chair - Louvain-la-Neuve - Belgium Main organizer	2024
TeV Particle Astrophysics - Napoli - Italy Convener of the Neutrino session	2023
EPS-HEP 2023 - Hamburg - Germany Convener of the 'Outreach and Diversity' session	2023
International Cosmic Ray Conference - Nagoya - Japan Convener of the Education and Outreach session	2023
Symposium "A decade of discoveries in high-energy physics" - Brussels - Belgium Initiator and main organizer	2023
Cosmic Rays in the Multi-Messenger Era - Paris - France Co-chair of the scientific committee - 30+ attendees	2022
Neutrinos in the Multi-Messenger Era - Louvain-la-Neuve - Belgium Chair of the scientific and organizing committee - 50+ attendees	2022
International Conference on High Energy Physics - Bologna - Italy Convener of the Education and Outreach session	2022
Town Hall KM3NeT meeting - Catania - Italy Member of the SOC	2022
First Pan-African Astroparticle and Collider Physics Workshop Member of the International Advisory Committee, online	2022
Cosmic Rays and Neutrinos in the Multi-Messenger Era - Paris - France (online event) Co-chair of the scientific and organizing committee - 350+ attendees	2020

INVITED SCIENTIFIC PRESENTATIONS

Invited talk, Nordita , Stockholm - Sweden	2024
<i>Review on GeV-TeV neutrino detection techniques</i>	
Invited talk, Invisibles , Bologna - Italy	2024
<i>Review of Neutrino Astronomy with the largest telescopes around the world</i> - given by J. Lazar for health reasons	
Invited talk, NuPhys23 , London - UK	2023
<i>Neutrinos in Coincidence with Gravitational Waves</i> - given by M. Vereecken for health reasons	
Summary talk, Cosmic Rays in the Multi-Messenger Era , Paris - France	2022
<i>Neutrino Astronomy in the next Decade</i>	
Invited plenary talk, ICHEP , Bologna - Italy	2022
<i>Multi-Messenger Physics</i>	
Invited talk, Cosmic Rays and Neutrinos in the Multi-Messenger Era , Paris - France	2020
<i>Review of searches for low-energy neutrinos from transient phenomena.</i>	
Invited highlight talk, European Physical Society Conference (EPS-HEP) , Ghent - Belgium	2019
<i>High-Energy Neutrino Astronomy: Current Status and Prospects</i>	
Invited talk, Société Belge de Physique , Antwerpen - Belgium	2018
<i>Solar flare neutrinos in the multimessenger era</i>	

SCIENCE COMMUNICATION AND VALORISATION - SELECTED ACTIVITIES

Initiator of the 'A Neutrino in the Streets', Louvain-la-Neuve, Belgium	2024
Curator of the exhibition 'Instrumenting a Sea of Noise', Halles Universitaires, Louvain-la-Neuve, Belgium	2024
Initiator and organizer of an outreach village at the Town Hall of Brussels, Belgium	2023
Co-author of KM3NeT article in the CERN Courier	2022
Author of science news for Tintin website	2021-Present
Co-author of the <i>Deep Sea Hunter</i> project on the citizen science platform Zooniverse	2021-Present
Presenter at the <i>90 degrees South</i> webinar, Oxford University	2021
Presenter and panel member in several webinars	2020-present
Guest of <i>La Méthode scientifique</i> , France Culture on the topic <i>Particules en Antarctique : l'univers de l'autre côté du Big Bang</i> together with Antoine Kouchner	2020
<i>In the Spotlight</i> researcher of EuroPhysics News Journal	2020

ART PIECES

<i>Below the Surface</i> , sound and video recorded from the <i>Bathysphere</i> as it floated on the sea surface adjacent to the KM3NeT ORCA array	2022
<i>Axis Mundi</i> , timelapse video of 24 hours at the South Pole, combined with a simultaneous sampling of data from the underlying IceCube Neutrino Observatory transduced into sound	2020