europass



Koffi Loumovi Amèwuho Worou

Date of birth: 1988/06/10 | **Nationality:** Belgian, Togolese | **Email address:** koffi.worou@gmail.com | **Website:** https://koffiworou.github.io/ | **LinkedIn:** koffi-worou

EDUCATION AND TRAINING

2016/10/04 – 2023/03/16 Louvain-la-Neuve, Belgium

PH.D. IN SCIENCES Université catholique de Louvain

1. Main subjects
    a. Interannual rainfall variability over Guinea Coast, and the role of oceanic internal modes of variability for different seasons, during the 20th century and the last decades
    b. Evaluation of the representation of the boreal summer teleconnection between the Atlantic equatorial mode of variability (Atlantic Niño) and the rainfall over the Guinea Coast
    c. Future changes in the variability of the Atlantic Equatorial mode and its impact on the Guinea Coast rainfall and extreme rainfall indices
2. Main skills developped
    a. analysis and synthesis capacities, critical thinking, problem formulation, developing solutions, questioning oneself
    b. curiosity, perseverance, and endurance
    c. humility and continuous learning
    d. planning and management
    e. computational skills
    f. teamwork and networking
    g. oral and writing communications

Website https://uclouvain.be/en/research-institutes/eli/elic | **Field of study** Climate Physics |

Thesis Past, present, and future impacts of oceanic internal modes of variability on the rainfall over the West African Guinea Coast

2012/08/31 – 2016/01/21 Louvain-la-Neuve, Belgium

M.SCI. IN PHYSICS Université catholique de Louvain

Main subject:
1. Development of an evaporation scheme in the thermodynamic component of a sea-ice model (NEMO-LIM3)
2. Sensitivity experiments on the role of relative humidity in the melt ponds formation over the Southern Ocean

Skills covered:
1. Improvement of climate models
2. Simulations with climate models
3. Analysis of models' outputs
4. Experimental designs

Website https://uclouvain.be/en/research-institutes/eli/elic | **Field of study** Earth, Planets and Climate |

Thesis On the physical processes that limit the formation of melt ponds over the Antarctic sea ice

2007/08/31 – 2011/07/31 Lomé, Togo

M.SCI. IN PHYSICS Université de Lomé

Website https://univ-lome.tg/accueil | **Field of study** Material Sciences

WORK EXPERIENCE

UNIVERSITY TEACHING ASSISTANT – UNIVERSITÉ CATHOLIQUE DE LOUVAIN – 2016/02/12 – 2023/10/31 – LOUVAIN-LA-NEUVE, BELGIUM

Supervision of exercise sessions of the following courses:
1. Astronomy and Geophysics
2. Thermodynamics and Electromagnetism

3. General Physics I
4. Applied Physics to Medicine
5. Experimental Physics and mathematical introduction to experimental sciences, parts I and II

Supervision of the physics laboratory sessions of the following courses:

1. General Physics I
2. Applied Physics to Medicine
3. General Physics II
4. Experimental Physics and mathematical introduction to experimental sciences, parts I and II

Main skills developped

1. Teaching skills
    a. Oral communication in front of small and large groups
    b. Listening, reacting and arousing interest
2. Time management
    a. Start and end teaching sessions on time
    b. Carry out the Ph.D. thesis and teaching at the same time

POSTDOCTORAL RESEARCH POSITION – UPPSALA UNIVERSITY – 2023/12/15 – Current – UPPSALA, SWEDEN

- Evaluate the socio-economic impacts of compound extremes
    - Compound drought-flood events
    - Compound drought-heatwave events
- Use large language models to build a database of climate-hazard impacts

SKILLS

Operating systems

Windows | Linux

Main computer skills (Optimal knowledge)

Python | Matlab | R | Fortran | LaTeX

Other computer skills (Intermediate knowledge)

QGIS | ArcGIS | SAS | SPSS | JMP

Miscellaneous

Microsoft Office | Microsoft Word | Microsoft Excel | Microsoft Powerpoint

LANGUAGE SKILLS

Mother tongue(s): **FRENCH** | **IFÊ AND EWÉ (TOGOLESE LANGUAGES)**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	C1	B2	B2	B2
SWEDISH	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

2026

Wikimpacts 1.0: a new global climate impact database based on automated information extraction from Wikipedia

Vol 26, 2609–2636

Li, N.,..., Worou, K.,.... (2026). Wikimpacts 1.0: a new global climate impact database based on automated information extraction from Wikipedia. Natural Hazards and Earth System Sciences, 26(6), 2609–2636. https://doi.org/10.5194/nhess-26-2609-2026

Authors: Ni Li, Wim Thiery, Shorouq Zahra, Mariana Madruga de Brito, Koffi Worou, Murathan Kurfali, Seppe Lampe, Paul Munoz, Clare Flynn, Camila Trigoso, Joakim Nivre, Jakob Zscheischler, Gabriele Messori | **Journal Name**: Natural Hazards and Earth System Sciences | **Volume, Issue and Pages**: vol. 26, no. 6, pp. 2609–2636 | **Publisher**: Copernicus GmbH

Link https://nhess.copernicus.org/articles/26/2609/2026/nhess-26-2609-2026.pdf

2025

Compounding droughts and floods amplify socio-economic impacts

Worou, K., & Messori, G. (2025). Compounding droughts and floods amplify socio-economic impacts. Environmental Research Letters, 20(10), 104024. https://doi.org/10.1088/1748-9326/adfe82

Authors: Koffi Worou and Gabriele Messori | **Journal Name**: Environmental Research Letters | **Volume, Issue and Pages**: vol. 20, no. 10, p. 104024 | **Publisher**: IOP Publishing

Link https://iopscience.iop.org/article/10.1088/1748-9326/adfe82/pdf

2022

Future changes in the mean and variability of extreme rainfall indices over the Guinea coast and role of the Atlantic equatorial mode

Worou, K. et al. (2023). Future changes in the mean and variability of extreme rainfall indices over the Guinea coast and role of the Atlantic equatorial mode. Weather and Climate Dynamics, 4(2), 511–530. https://doi.org/10.5194/wcd-4-511-2023

Authors: K. Worou, T. Fichefet, and H. Goosse | **Journal Name**: Weather and Climate Dynamics | **Volume, Issue and Pages**: vol. 4, no. 2, June 2023, pp. 511–30 | **Publisher**: Copernicus GmbH

Link https://wcd.copernicus.org/articles/4/511/2023/wcd-4-511-2023.pdf

2022

Weakened impact of the Atlantic Niño on the future equatorial Atlantic and Guinea Coast rainfall

Worou, K., Goosse, H., Fichefet, T., & Kucharski, F. (2022). Weakened impact of the Atlantic Niño on the future equatorial Atlantic and Guinea Coast rainfall. Earth System Dynamics, 13(1), 231–249. https://doi.org/10.5194/esd-13-231-2022

Authors: Worou, K, Goosse, H, Fichefet, T & Kucharski | **Journal Name**: Earth System Dynamics | **Volume, Issue and Pages**: vol. 13, no. 1, pp. 231–249 | **Publisher**: Copernicus GmbH

Link https://esd.copernicus.org/articles/13/231/2022/esd-13-231-2022.pdf

2020

Interannual variability of rainfall in the Guinean Coast region and its links with sea surface temperature changes over the twentieth century for the different seasons

Worou, K. et al (2020). Interannual variability of rainfall in the Guinean Coast region and its links with sea surface temperature changes over the twentieth century for the different seasons. Climate Dynamics, 55(3-4), 449–470.

Worou, K. et al (2020). Interannual variability of rainfall in the Guinean Coast region and its links with sea surface temperature changes over the twentieth century for the different seasons. Climate Dynamics, 55(3-4), 449–470.

Authors: Worou, K., Goosse, H., Fichefet, T., Guichard, F., & Diakhate, M. | **Journal Name**: Climate Dynamics | **Volume, Issue and Pages**: vol. 55, no. 3-4, pp. 449–470 | **Publisher**: Springer Science and Business Media LLC

Link https://link.springer.com/content/pdf/10.1007/s00382-020-05276-5.pdf

2019

On the discretization of the ice thickness distribution in the NEMO3.6-LIM3 global ocean–sea ice model

Massonnet, F. et al (2019). On the discretization of the ice thickness distribution in the NEMO3.6-LIM3 global ocean–sea ice model. Geoscientific Model Development, 12(8), 3745–3758. https://doi.org/10.5194/gmd-12-3745-2019

Authors: Massonnet, F., Barthélemy, A., Worou, K., Fichefet, T., Vancoppenolle, M., Rousset, C., & Moreno-Chamarro, E. | **Journal Name**: Geoscientific Model Development | **Volume, Issue and Pages**: vol. 12, no. 8, pp. 3745–3758 | **Publisher**: Copernicus GmbH

Link https://gmd.copernicus.org/articles/12/3745/2019/gmd-12-3745-2019.pdf

CONFERENCES AND SEMINARS

2022/10/03 – 2022/10/05 Recife, Brazil

Tropical and South Atlantic Variability Meeting - 2022 (jointly organized by TRIATLAS and PIRATA)

1. Online participation in the different sessions
2. The link between climate and ecosystem variabilities in the tropical Atlantic

Link https://triatlas.w.uib.no/triatlas-conference-and-general-assembly/

2022/06/20 – 2022/07/01 The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy

Artificial Intelligence for Detection and Attribution of Climate Extremes | (smr 3717)

1. Participation in the different sessions (oral presentations and hackatons)
2. Presentation of a group work on the attribution of the May 2021 heat wave in Spain

Link https://indico.ictp.it/event/9802/

2021/04/19 – 2021/04/30 Online

European Geosciences Union (Virtual General Assembly 2021)

Oral presentation on the Weakened impact of the Atlantic Niño on the future Guinean coast rainfall

Link https://doi.org/10.5194/egusphere-egu21-1168

2021/03/15 – 2021/03/17 Online workshop hosted by the ICTP, Trieste, Italy

Workshop on Indian Ocean Variability and Teleconnections | (smr 3592)

1. Participation in the different sessions
2. Participation in discussions in break-out groups

Link https://indico.ictp.it/event/9494/

2019/08/07 University of Lomé, Physics School, Lomé, Togo

Seminar on the oceanic forcings of the rainfall changes over Guinea Coast during the 20th century

Oral presentation

2019/07/21 – 2019/08/02 Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana

Tropical Meteorology of West and East Africa – SWIFT and YESS International Summer School

1. Participation in the different sessions (oral presentations and lab sessions)
2. Daily chart discussions
3. Realization of West African Synthetic Analysis and Forecast (WASA/F) maps
4. Group presentation on Climate Communication, Impact Based Forecasting and User Evaluations
5. Poster presentation on the remote effect of SST variability on the interannual Guinean Coast rainfall variability over the 20th century and the future

Link https://africanswift.org/tropical-meteorology-of-west-and-east-africa-swift-and-yess-international-summerschool- 2019/

2018/05/28 – 2018/06/08 The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy

Ninth ICTP Workshop on the Theory and Use of Regional Climate Models | (smr 3208) Scientific

1. Participation in the different sessions (oral presentations and lab sessions)
2. Group work on Modeling the impact of Urbanization and Irrigation on the climate in West Africa
3. Presentation of my Ph.D. first project on the West-African rainfall variability and its linkages with SST changes

Link https://indico.ictp.it/event/8313/overview

2018/04/08 – 2018/04/13 Vienna, Austria

European Geosciences Union (General Assembly 2018)

1. Participation in different sessions
2. Poster presentation on the West-African rainfall variability and its link with the Atlantic Ocean variability at different time scales

Link https://meetingorganizer.copernicus.org/EGU2018/EGU2018-260.pdf

HONOURS AND AWARDS

2006/05/31

First position at the national secondary education baccalaureate examination (part I) in Togo

NETWORKS AND MEMBERSHIPS

CURRENT

Member of the Belgian Physical Society

Young Minds UCLouvain (https://sites.uclouvain.be/youngminds/)

ORCID

https://orcid.org/0000-0002-2230-8431

ResearchGate

https://www.researchgate.net/profile/Koffi-Worou-2

HOBBIES AND INTERESTS

Sports activities

1. Badminton
2. Climbing
3. Cycling
4. Jogging