Curriculum Vitae

Meryl WIMMER

Post-Doc
in atmospheric modeling
at Goethe Universität
Frankfurt am Main

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PUBLICATIONS

	Total	1st autor
Peer-reviewed journals	**4**	**2**
Other journals	1	-
Proceedings	1	-

PRESENTATIONS / POSTERS

	Total	1st autor
Congress, conference, symposium, colloquium	4/1	3/-
International workshop, meetings, …	12/3	6/-
French workshop, meetings, …	12/3	6/3

EDUCATION

10/2018 – 12/2021	**PhD thesis** « *Model error representation in the regional Ensemble Prediction System AROME-EPS* » (defended on 07/12/2021) Centre National de Recherches Météorologiques, Doctoral School SDU2E Université Toulouse III - Paul Sabatier, Toulouse (FR)
4 - 8/03/2019	ECMWF Training Course: Parametrization of subgrid physical processes, European Centre for Medium-Range Weather Forecasts, Reading (UK)
2016-2018	**MSc "Sciences of the Ocean, Atmosphere, and Climate",** **Climate Dynamics studies** (Magna Cum Laude, Rank 1/12) Université Toulouse III - Paul Sabatier, Toulouse (FR)
2014-2016	**BSc "Physics - Chemistry, Applied to Astrophysics and Meteorology",** (with high honours) Université Toulouse III - Paul Sabatier, Tarbes (FR)

PROFESSIONAL EXPERIENCE

From 01/01/2025 to 30/06/2027 (2,5 years)	**Postdoctoral contract:** « *Interactions between parameterization of radiation, microphysics and turbulence in marine boundary layer: study cases of stratocumuli over Southern Ocean* » Goethe Universität Frankfurt am Main, Frankfurt am Main (DE) *SOCRATES, MARCUS, stratocumulus, ICON (global and limited are version), MBL-ICON, HErZ* Supervisors: Anna POSSNER, Maike AHLGRIMM, Jürg SCHMIDLI
02/2022 - 01/2024 (2 years)	**Postdoctoral contrat**: « *Impact of cloud microphysical schemes of global and regional models on the dynamics of Arctic cyclones: comparison with airborne and CloudSat-CALIPSO data* », Laboratoire de Météorologie Dynamique, Paris (FR) *DARDAR, liquid-ice partition function, ARPEGE, LMDZ, THINICE, student supervision* Funding: **CNES** post-doctoral grant Supervisors: Gwendal RIVIÈRE, Julien DELANOË, Éric BAZILE, Étienne VIGNON
2019-2021 (2 years)	**French teaching of Algorithmic and Python**: 36h lessons (x2=72h) for the Techniciens des Métiers de la Météorologie (military and civils students), Ecole Nationale de la Météorologie, Toulouse (FR) *Course design, TD and exams, Exam marking*
10/2018 - 12/2021 (3 years and 3 months)	**PhD thesis**: « *Model error representation in the regional Ensemble Prediction System AROME-EPS* », Centre National de Recherches Météorologiques, Doctoral School SDU2E, Toulouse (FR) *Physical parameterization, AROME-EPS, Uncertainty, Sensitivity analysis, Parameters perturbation, Metamodelling, Statistical scores* Funding : **Université Toulouse III - Paul Sabatier** (Unique contract) Thesis directors : Loïk BERRE, Laurent DESCAMPS Publication : Wimmer et al. (2022; *QJRMS;* doi : 10.1002/qj.4239)
02/2018 - 08/2018 (6 months)	**2nd Master internship**: « *First analysis of the NAWDEX field campaign*», Centre National de Recherches Météorologiques, Toulouse (FR) *Deep Convection parameterization, Lagrangian trajectories, ARPEGE-EPS, PV framework, Warm Conveyor Belt, Jet Stream, NAWDEX* Supervisors: Philippe ARBOGAST, Gwendal RIVIÈRE Publication : Rivière et al. (2021; *WCD*; doi : 10.5194/wcd-2-1011-2021) Wimmer et al. (2022; *WCD;* doi: 10.5194/wcd-3-863-2022)

RESEARCH THEMES

Atmospheric modeling	AROME, ARPEGE, ICON, Méso-NH, LMDZ, AROME-EPS, ARPEGE-EPS
Physical Parameterization	Deep convection, large-scale subgrid condensation, …
Dynamics of mid and high latitudes	Extratropical Cyclone, Warm Conveyor Belt, Jet Stream, Lagrangian Trajectories, Arctic Cyclone, Stratocumuli, …
Model Uncertainty	Parameters perturbation, Multi-physics, SPPT, …
Sensitivity Analysis	Morris method, Sobol' indices, metamodelling, Gaussian Processes, Polynomial Chaos Expansion
Observations	Fiel Campaign: NAWDEX, THINICE, SOCRATES ; Satellite data : DARDAR, Himawari

SKILLS

Language	French: Native language English: European B2 level, host family stays in the UK and Ireland, travels Italian: European B1 level, Italian-language European section, language exchange with Milan
Information Technology	Office automation: Pack Office, Libre Office, Open Office, LaTeX Operating System: Linux (Ubuntu, OpenSuse, Mageia), Windows Programming: Python, Matlab, R, Fortran90, Bash, HTML5, CSS3, PHP, Ferret, Git