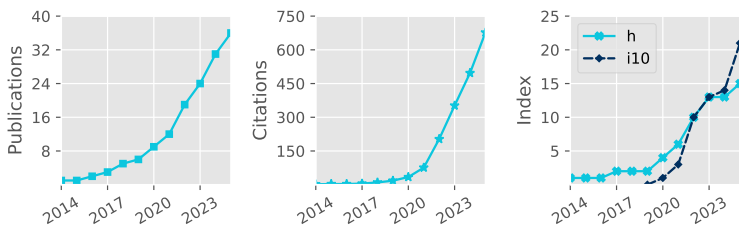# Denis Sergeev

👤 Pronouns: he/him/his
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🐙 dennissergeev

Total Pub.	**36**
Refereed	**35**
First Author	**8**
Citations	**677**
h-index	**15**

🕮 Updated: 29 Sept 2025

Career history

Jan 2025–now	**Lecturer in Astrophysics**
	School of Physics, University of Bristol
Sep 2021–Dec 2024	**Postdoctoral Researcher**
	Project: Exascale Exoplanet Modelling
	Department of Physics & Astronomy, University of Exeter
Sep 2018–Aug 2021	**Postdoctoral Researcher**
	Project: Climate Modelling of Rocky Exoplanets
	Department of Mathematics & Statistics, University of Exeter

Academic Qualifications

Oct 2014–Aug 2018	**PhD in Meteorology**
	Thesis title (shortened): 'Characteristics of Polar Lows in the Nordic Seas' ⤤
	School of Environmental Sciences, University of East Anglia
	Supervisors: Ian A. Renfrew, Thomas Spengler, Stephen Dorling
Sep 2009–May 2014	**Specialist Diploma (1st class)**
	Thesis title: 'Idealised Numerical Modelling of Polar Mesocyclone Dynamics' ⤤
	Department of Meteorology and Climatology, Moscow State University
	Supervisor: Victor Stepanenko

Funding and Awards

Direct Funding, PI		**Est. Total Value**
2024	Above & Beyond Silver Award	University of Exeter	£1000
2023	Meeting Organisation Funding (Exoclimes VI and ExoSLAM)	RAS	£5000
2022	Undergraduate Student Bursary (awarded; student declined)	RAS	£1200
2017	Best Presentation Award	CEEDA Symposium	~£100
2016	Travel Bursary	Polar Prediction School	~£1000
2015	Travel Award	High-Latitude Dynamics workshop	~£1000
2014	Lord Zuckerman PhD scholarship	School of Environmental Sciences, UEA	~£112 000
2014	Young Scientist Travel Award	EGU General Assembly	~£200
2014	Russian Academy of Sciences Young Scientist Medal	~£1000
Direct Funding, co-I		
2024	UKSA Studentships: Mars Exploration Science	▪
2024	Research Software Engineer Support	DiRAC HPC	~£45 000
Observational Facilities Resources		
2023	JWST: 49.21 Primary Spacecraft Hours in Cycle 2 (GO 3838, PI: J. Kirk)	▪

Research Interests

Publications (see below):

Atmospheric aerosols: #17, 20, 22, 24, 27, 29, 34
- How do clouds, hazes and dust shape planetary climates?

Atmospheric convection on exoplanets: #8, 17, 30, 35
- How does convection shape global energy redistribution?

Extraterrestrial lightning: #19, 35
- How is lightning generated on exoplanets and can we detect it?

Atmospheric dynamics on Earth and other planets: #2, 3, 4, 5, 7, 10, 11, 13, 14, 16
- How do wind jets and cyclones form in planetary atmospheres?

Planet formation: #25, 28, 31, 32, 33
- How does atmospheric composition relate to the planet's history?

Model development and intercomparison: #12, 15, 16, 17, 18, 23, 30
- How do we build robust and reproducible exoplanet models?

Publications

#	(preprints in **grey**)	Citations
36	Ahrer, E., Fairman, C., Kirk, J., Wakeford, H. R., et al. (incl. **Sergeev, D. E.**), 2025, BOWIE-ALIGN: Weak spectral features in KELT-7b's JWST NIRSpec/G395H transmission spectrum imply a high cloud deck or a low-metallicity atmosphere, arXiv:2509.12479 ☑	▪
35	Mak, M. T., **Sergeev, D. E.**, Mayne, N. J., Zamyatina, M., et al., 2025, The impact of different haze types on the atmospheres and observations of hot Jupiters: 3D simulations of HD 189733b, HD 209458b, and WASP-39b, MNRAS ☑	▪
34	**Sergeev, D. E.**, McDermott, J. W., Woods, L., Braam, M., et al., 2025, Lightning activity on a tidally locked terrestrial exoplanet in storm-resolving simulations for a range of surface pressures, MNRAS ☑	▪
33	Meech, A., Claringbold, A. B., Ahrer, E., Kirk, J., et al. (incl. **Sergeev, D. E.**), 2025, BOWIE-ALIGN: substellar metallicity and carbon depletion in the aligned TrES-4b with JWST NIRSpec transmission spectroscopy, MNRAS ☑	5
32	Kirk, J., Ahrer, E., Claringbold, A. B., Zamyatina, M., et al. (incl. **Sergeev, D. E.**), 2025, BOWIE-ALIGN: JWST reveals hints of planetesimal accretion and complex sulphur chemistry in the atmosphere of the misaligned hot Jupiter WASP-15b, MNRAS ☑	15
31	Penzlin, A. B. T., Booth, R. A., Kirk, J., Owen, J. E., et al. (incl. **Sergeev, D. E.**), 2024, BOWIE-ALIGN: how formation and migration histories of giant planets impact atmospheric compositions, MNRAS ☑	19
30	**Sergeev, D. E.**, Boutle, I. A., Lambert, F. H., Mayne, N. J., et al., 2024, The Impact of the Explicit Representation of Convection on the Climate of a Tidally Locked Planet in Global Stretched-mesh Simulations, ApJ ☑	8
29	Natchiar, S. R. M., Webb, M. J., Lambert, F. H., Vallis, G. K., et al. (incl. **Sergeev, D. E.**), 2024, Reduction in the Tropical High Cloud Fraction in Response to an Indirect Weakening of the Hadley Cell, JAMES ☑	▪
28	Zamyatina, M., Christie, D. A., Hébrard, E., Mayne, N. J., et al. (incl. **Sergeev, D. E.**), 2024, Quenching-driven equatorial depletion and limb asymmetries in hot Jupiter atmospheres: WASP-96b example, MNRAS ☑	13
27	Mak, M. T., **Sergeev, D. E.**, Mayne, N., Banks, N., et al., 2024, 3D simulations of TRAPPIST-1e with varying CO_2, CH_4, and haze profiles, MNRAS ☑	4
26	Villanueva, G. L., Fauchez, T. J., Kofman, V., Alei, E., et al. (incl. **Sergeev, D. E.**), 2024, Modeling Atmospheric Lines by the Exoplanet Community (MALBEC) Version 1.0: A CUISINES Radiative Transfer Intercomparison Project, Planet. Sci. J. ☑	10
25	Kirk, J., Ahrer, E., Penzlin, A. B. T., Owen, J. E., et al. (incl. **Sergeev, D. E.**), 2024, BOWIE-ALIGN: A JWST comparative survey of aligned versus misaligned hot Jupiters to test the dependence of atmospheric composition on migration history, RAS Techniques and Instruments ☑	13
24	Mak, M. T., Mayne, N. J., **Sergeev, D. E.**, Manners, J., et al., 2023, 3D Simulations of the Archean Earth Including Photochemical Haze Profiles, J. Geophys. Res.: Atmospheres ☑	6
23	**Sergeev, D. E.**, Mayne, N. J., Bendall, T., Boutle, I. A., et al., 2023, Simulations of idealised 3D atmospheric flows on terrestrial planets using LFRic-Atmosphere, Geosci. Model Dev. ☑	12
22	Cohen, M., Bollasina, M. A., **Sergeev, D. E.**, Palmer, P. I., et al., 2023, Traveling Planetary-scale Waves Cause Cloud Variability on Tidally Locked Aquaplanets, Planet. Sci. J. ☑	8
21	Eager-Nash, J. K., Mayne, N. J., Nicholson, A. E., Prins, J. E., et al. (incl. **Sergeev, D. E.**), 2023, 3D Climate Simulations of the Archean Find That Methane has a Strong Cooling Effect at High Concentrations, J. Geophys. Res.: Atmospheres ☑	6
20	McCulloch, D., **Sergeev, D. E.**, Mayne, N., Bate, M., et al., 2023, A modern-day Mars climate in the Met Office Unified Model: dry simulations, Geosci. Model Dev. ☑	6

19   Braam, M., Palmer, P. I., Decin, L., Ridgway, R. J., et al. (incl. **Sergeev, D. E.**), 2022, Lightning-   **16**
      induced chemistry on tidally-locked Earth-like exoplanets, MNRAS 🔗

18   Christie, D. A., Lee, E. K. H., Innes, H., Noti, P. A., et al. (incl. **Sergeev, D. E.**), 2022, CAMEMBERT: **8**
      A Mini-Neptunes General Circulation Model Intercomparison, Protocol Version 1.0.A CUISINES Model
      Intercomparison Project, Planet. Sci. J. 🔗

17   **Sergeev, D. E.**, Fauchez, T. J., Turbet, M., Boutle, I. A., et al., 2022, The TRAPPIST-1 Habitable   **67**
      Atmosphere Intercomparison (THAI). II. Moist Cases-The Two Waterworlds, Planet. Sci. J. 🔗

16   Turbet, M., Fauchez, T. J., **Sergeev, D. E.**, Boutle, I. A., et al., 2022, The TRAPPIST-1 Habitable   **55**
      Atmosphere Intercomparison (THAI). I. Dry Cases-The Fellowship of the GCMs, Planet. Sci. J. 🔗

15   Fauchez, T. J., Villanueva, G. L., **Sergeev, D. E.**, Turbet, M., et al., 2022, The TRAPPIST-1 Habitable   **48**
      Atmosphere Intercomparison (THAI). III. Simulated Observables-the Return of the Spectrum, Planet.
      Sci. J. 🔗

14   **Sergeev, D. E.**, Lewis, N. T., Lambert, F. H., Mayne, N. J., et al., 2022, Bistability of the Atmospheric   **27**
      Circulation on TRAPPIST-1e, Planet. Sci. J. 🔗

13   Cohen, M., Bollasina, M. A., Palmer, P. I., **Sergeev, D. E.**, et al., 2022, Longitudinally Asymmetric   **14**
      Stratospheric Oscillation on a Tidally Locked Exoplanet, ApJ 🔗

12   Fauchez, T. J., Turbet, M., **Sergeev, D. E.**, Mayne, N. J., et al., 2021, TRAPPIST Habitable Atmosphere   **36**
      Intercomparison (THAI) Workshop Report, Planet. Sci. J. 🔗

11   Terpstra, A., Renfrew, I. A., & **Sergeev, D. E.**, 2021, Characteristics of Cold-Air Outbreak Events and   **26**
      Associated Polar Mesoscale Cyclogenesis over the North Atlantic Region, J. Cli. 🔗

10   Renfrew, I. A., Barrell, C., Elvidge, A. D., Brooke, J. K., et al. (incl. **Sergeev, D.**), 2021, An evaluation   **65**
      of surface meteorology and fluxes over the Iceland and Greenland Seas in ERA5 reanalysis: The impact
      of sea ice distribution, Q. J. R. Meteorol. Soc. 🔗

9   Eager-Nash, J. K., Reichelt, D. J., Mayne, N. J., Hugo Lambert, F., et al. (incl. **Sergeev, D. E.**), 2020,   **25**
      Implications of different stellar spectra for the climate of tidally locked Earth-like exoplanets, A&A 🔗

8   **Sergeev, D. E.**, Lambert, F. H., Mayne, N. J., Boutle, I. A., et al., 2020, Atmospheric Convection   **62**
      Plays a Key Role in the Climate of Tidally Locked Terrestrial Exoplanets: Insights from High-resolution
      Simulations, ApJ 🔗

7   Joshi, M. M., Elvidge, A. D., Wordsworth, R., & **Sergeev, D.**, 2020, Earth's Polar Night Boundary Layer   **18**
      as an Analog for Dark Side Inversions on Synchronously Rotating Terrestrial Exoplanets, ApJ 🔗

6   Renfrew, I. A., Pickart, R. S., Våge, K., Moore, G. W. K., et al. (incl. **Sergeev, D.**), 2019, The Iceland   **27**
      Greenland Seas Project, BAMS 🔗

5   **Sergeev, D.**, Renfrew, I. A., & Spengler, T., 2018, Modification of Polar Low Development by Orography   **15**
      and Sea Ice, Mon. Wea. Rev. 🔗

4   Shestakova, A. A., Toropov, P. A., Stepanenko, V. M., **Sergeev, D. E.**, et al., 2018, Observations and   **6**
      modelling of downslope windstorm in Novorossiysk, Dyn. Atm. Ocean. 🔗

3   **Sergeev, D. E.**, Renfrew, I. A., Spengler, T., & Dorling, S. R., 2017, Structure of a shear-line polar low,   **22**
      Q. J. R. Meteorol. Soc. 🔗

2   Spengler, T., Renfrew, I. A., Terpstra, A., Tjernström, M., et al. (incl. **Sergeev, D.**), 2016, High-   **7**
      Latitude Dynamics of Atmosphere-Ice-Ocean Interactions, BAMS 🔗

1   Eliseev, A. V., & **Sergeev, D. E.**, 2014, Impact of subgrid-scale vegetation heterogeneity on the simu-   **8**
      lation of carbon-cycle characteristics, Izv. Atmos. Ocean. Phy. 🔗

Conferences and Seminars

Invited Talks

Jun 2025   Atmospheric dynamics on other planets 🔗
            Durham HPC Days | Durham, UK
Feb 2025   Exoplanet climate modelling with LFRic
            University of East Anglia | Norwich, UK
May 2024   3D simulations of exoplanet atmospheres with the next-generation Met Office model
            University of Leicester | Leicester, UK
Apr 2024   Shall I compare thee to a distant world? Inter-planet and inter-model comparative studies

	EGU General Assembly	Vienna, Austria
Jul 2023	Simulations of idealised 3D atmospheric flows on terrestrial planets using LFRic-Atmosphere
	NASA GISS Seminar	Online
Mar 2023	First results of using LFRic for exoplanet climate modelling
	NIWA Seminar	Wellington, New Zealand
Feb 2023	Atmospheric dynamics and chemistry on exoplanets
	UQ Astro Group Meeting	Brisbane, Australia
Feb 2023	Atmospheric dynamics and chemistry on exoplanets ↗
	UniSQ Exoplanet Group Seminar	Brisbane, Australia
Feb 2023	Atmospheric dynamics and chemistry on exoplanets
	UNSW AstroSeminar	Sydney, Australia
Apr 2022	Dichotomy of the atmospheric circulation on TRAPPIST-1e ↗
	NASA GISS Seminar	Online
Jan 2022	Dichotomy of the atmospheric circulation on TRAPPIST-1e
	NASA GSFC Extrasolar Planets Seminar	Online
Nov 2021	TRAPPIST-1 Habitable Atmosphere Intercomparison (THAI)
	MPIA APEx Exocoffee	Online
May 2021	Overcast on TRAPPIST-1e ↗
	RCC MSU Geophysical Seminar	Online
Sep 2020	Simulations of convection over a range of atmospheric conditions on TRAPPIST-1e ↗
	THAI Workshop	Online
Apr 2020	Atmospheric convection plays a key role in the climate of tidally locked exoplanets ↗
	University of Reading Meteorology Seminar	Online
Apr 2020	Atmospheric convection plays a key role in the climate of tidally locked exoplanets ↗
	NASA GISS Seminar	Online

Contributed Talks

Sep 2023	Introducing GeoVista - Cartographic rendering and mesh analytics powered by PyVista (joint talk)
	Met Office Seminar	Exeter, UK
Jul 2022	Bistability of the atmospheric circulation on TRAPPIST-1e
	Rocky Worlds II	Oxford, UK
Apr 2022	Dichotomy of the atmospheric circulation on TRAPPIST-1e
	Exoplanet Modelling in the James Webb Era II: Terrestrial planets and sub-Neptunes	Online
Nov 2020	Explicit convection on tidally locked rocky exoplanets simulated with the UM nesting suite ↗
	Unified Model users workshop	Online
Aug 2019	Simulations of moist convection on tidally-locked rocky exoplanets ↗
	Exoclimes V	Oxford, UK
Jun 2019	North Atlantic polar mesoscale cyclones in ERA5 and ERA-Interim reanalyses ↗
	IGP workshop	Norwich, UK
Apr 2019	Atmospheric convection on tidally-locked Earth-like exoplanets
	UK Exoplanet Community Meeting	London, UK
Jun 2018	Modification of Polar Low Development by Sea Ice and Svalbard Orography ↗
	POLAR2018	Davos, Switzerland
Oct 2017	The influence of Svalbard orography and sea ice on polar low development ↗
	18th Cyclone Workshop	Sainte-Adèle, Canada
Apr 2017	Polar lows and how background environment can influence their development ↗
	Cambridge Earth Systems Science EnvEast Doctoral Alliance Symposium	Cambridge, UK
May 2016	Structure of the shear-line polar low south of Svalbard
	NORPAN meeting	Tokyo, Japan
Apr 2016	Structure of the shear-line polar low south of Svalbard ↗
	13th European Polar Lows Working Group Workshop	Paris, France

Poster Presentations

Jun 2024	The impact of convection on the climate of a tidally locked planet in stretched-mesh simulations
	Exoplanets 5 | Leiden, Netherlands
Apr 2024	The impact of convection on the climate of TRAPPIST-1e in global stretched-mesh simulations
	EGU General Assembly | Vienna, Austria
Apr 2024	The impact of convection on the climate of a tidally locked planet in stretched-mesh simulations
	UK Exoplanet Community Meeting | Birmingham, UK
Nov 2022	Dry Modern-Day Mars Climate in the Met Office Unified Model
	UK Solar System Planetary Atmospheres | London, UK
Sep 2022	Bistability of the Atmospheric Circulation on TRAPPIST-1e
	UK Exoplanet Community Meeting | Edinburgh, UK
Jul 2015	Structure and dynamics of a shear-line polar low during a cold-air outbreak over the Norwegian Sea
	Royal Meteorological Society Student Conference | Birmingham, UK
Mar 2015	Structure and dynamics of a shear-line polar low during a cold-air outbreak over the Norwegian Sea
	Dynamics of Atmosphere-Ice-Ocean Interactions in the High Latitudes workshop | Rosendal, Norway
May 2014	Numerical modelling of polar mesocyclones dynamics diagnosed by the energy budget
	EGU General Assembly | Vienna, Austria
Apr 2013	Impact of subgrid-scale vegetation heterogeneity on the carbon cycle
	EGU General Assembly | Vienna, Austria
Apr 2013	Numerical modelling of polar mesocyclones generation mechanisms
	EGU General Assembly | Vienna, Austria

Supervision

(Projects with me as the lead supervisor are in **bold**. Students who continued their academic career are <u>underlined</u>.)

PhD Supervision

Sep 2025–Sep 2029	**Alex Corbett** (U. Bristol)
	Project: Convection on Sub-Neptunes
	Co-supervisors: B. Shipway, Z. Leinhardt
Sep 2025–Sep 2029	Will Luscombe
	Project: Forecasting Martian dust storms
	Co-supervisors: N. J. Mayne, M. Bate, B. Drummond
Sep 2021–Apr 2025	<u>Martha (Mei Ting) Mak</u> (U. Exeter)
	Project: Hazes in Planetary Atmospheres
	Co-supervisors: N. J. Mayne, J. Manners, E. Hébrard

Masters Supervision

Jan 2023–May 2024	Tom Batchelor, Luke Benzing, & <u>Alex McGinty</u>
	Project: Mars Atmosphere Modelling
	Co-supervisors: M. Bate, N. J. Mayne, D. McCulloch
Sep 2020–Sep 2022	<u>Danny McCulloch</u> (MSci by Research)
	Project: Climate Modelling of Modern-Day Mars
	Co-supervisors: M. Bate, N. J. Mayne
Apr 2021–Sep 2022	<u>Meghan Plumridge</u> (MSci by Research)
	Project: Climate Modelling of Early Mars
	Co-supervisors: M. Bate, N. J. Mayne
Jan 2021–May 2022	Jasper Chadwick & Esse Sellwood
	Project: Ocean Heat Transport on Rocky Exoplanets
	Co-supervisors: F. H. Lambert, J. Eager-Nash
Jan 2021–May 2022	Isabelle Browne & <u>Oakley Young</u>
	Project: Greenhouse Effect on Early Mars
	Co-supervisors: F. H. Lambert, N. J. Mayne, J. Eager-Nash
Jan 2020–May 2021	Toby Ferrison
	Project: Titan Climate Modelling
	Co-supervisor: F. H. Lambert

Oct 2018–May 2019   Jake Eager-Nash & David Reichelt
Project: Implications of Stellar Type on the Climate of Tidally Locked Terrestrial Exoplanets
Co-supervisors: F. H. Lambert, N. J. Mayne

Undergraduate and Summer Internship Supervision

Jul–Sep 2022   Oakley Young
Project: Ekman Ocean Model
Co-supervisors: J. Eager-Nash, F. H. Lambert

Jun–Sep 2022   James McDermott & Lottie Woods
Project: Simulations of Lightning Storms on Tidally Locked Rocky Exoplanets

Jun–Aug 2021   Oakley Young
Project: Climate Modelling of Archean Earth
Co-supervisors: J. Eager-Nash, N. J. Mayne

Jun–Aug 2021   Joshua Parkin & Esse Sellwood
Project: The Impact of Host Star Spectrum on the Climate of Rocky Exoplanets
Co-supervisors: J. Eager-Nash, N. J. Mayne

Jun–Aug 2019   Isobel Parry
Project: Water Cycle on Proxima Centauri b
Co-supervisor: F. H. Lambert

Teaching and Mentoring

2025–now	Environmental Physics Lecturer | University of Bristol | ∼40 students
2025–now	Practical Physics III: Research Skills and Group Project Tutor | University of Bristol | 2 groups of ∼7 students
2025–now	Research Project in Physics Supervisor & assessor | University of Bristol | ∼10 students
Jul 2024	Algorithms For Exascale Summer School ↗ Invited lecturer | University of Exeter | ∼20 students
Feb 2024	Physics of Climate Change Workshop lead | University of Exeter | ∼30 students
Jul 2023	Climatematch Academy Mentor | Online | 3 groups of ∼5 students
Jul 2023	International Sustainability Summer School Lecturer | University of Exeter | ∼10 students
Jun 2023	Exoclimes Summer School in Atmospheres and Modelling (ExoSLAM) ↗ Lecturer | University of Exeter | ∼50 students
2016–2018	Introduction to Python in Environmental Sciences ↗ Course creator & lead | University of East Anglia | ∼50 students
2015–2017	Modelling Environmental Processes; Meteorology; Numerical Skills Teaching assistant | University of East Anglia

Research Leadership and Impact

2024–now	Co-lead of Climates Using Interactive Suites of Intercomparisons Nested for Exoplanet Studies (CUISINES) ↗
Jun 2023	Co-chair of Exoclimes Summer School in Atmospheres and Modelling (ExoSLAM) ↗
2023	Interview by the University of Exeter about my research ↗
2023	Interview by UKRI/STFC about my outreach ↗
2023	Expert Scientist at the British Science Festival Climate Exhibition ↗
2022	Press releases: University of Exeter ↗, American University ↗, & INSU CNRS ↗
2020–now	3D visualisations of exoplanet simulations: 'Cloudy Skies of Distant Exoplanets' ↗ | University of Exeter Images of Research 2023 'A refined look at tidally locked exoplanets' ↗ | DiRAC HPC Research Image Competition 2023

‘Exoplanetary Atmospheres’ ↗ | Exeter Science Centre, Science as Art Gallery 2020
‘Dusty exoplanet atmospheres’ ↗ | Nature Press Release
‘Virtual Reality Exploration of Exoplanets’ ↗ | 360 VR video (contributor)
2019   Science consulting on the ‘Exoplanet Explorers’ videogame
2015   Blogging:
Disastrous Disaster Movies ↗
Polar Lows: What Fuels Arctic Hurricanes? ↗
Worldwide Weird Weather Words ↗

Organisation of Scientific Meetings

Mar 2026	UK Exoplanet Community Meeting (SOC) ↗	Bristol, UK
Oct 2025	Atmospheric and interior evolution of planetary magma oceans (SOC) ↗	Leiden, the Netherlands
Sep 2025	BUFFET-5 (Co-chair) ↗	Bordeaux, France
Jul 2025	Exoclimes VII (SOC) ↗	Montreal, Canada
Jun 2025	Idealised modelling with LFRic (Chair)	Exeter, UK	∼50 attendees
Oct 2024	BUFFET-4: Building a Unified Framework For Exoplanet Treatments (Co-chair) ↗	Online
Jun 2024	What's Cookin' Doc? A CUISINES meeting (Chair)	Leiden, the Netherlands	∼20 attendees
Jun 2023	ExoSLAM Summer School (Co-chair) ↗	Exeter, UK	∼50 attendees
Jun 2023	Exoclimes VI (LOC) ↗	Exeter, UK	∼200 attendees
Mar 2023	Challenge of Science Leadership Short Course	Exeter, UK

Reviewing and External Activities

2017–now	Reviewer for: Nat. Astron., MNRAS, Planet. Sci. J., Geophys. Res. Lett., ApJ, Planet. Space Sci., Q. J. R. Meteorol. Soc.
2023–now	Expert reviewer for: the James Webb Space Telescope General Observer Programs (Exoplanets & Disks, Cycles 3 & 4)
2021–now	Member of: the Royal Astronomical Society, Europlanet Society

Skills

Languages	English (fluent), French (basic), Russian (native)
Numerical models	LFRic, Unified Model, SOCRATES, LAGRANTO, Isca
Programming languages	Python, Bash, FORTRAN, MATLAB, NCL
Python libraries (user)	cartopy, cython, iris, matplotlib, numpy, pandas, pyvista, xarray
Python libraries (creator/contributor)	aeolus, cartopy, pyvista, geovista
Parallel computing	Dask, MPI, OpenMP
Version control	Git, Subversion
Document preparation	LaTeX, Quarto, Jupyter Notebooks, Markdown, HTML, CSS, reST

Vocational Training

Sep 2023	Belbin Training ↗
Mar 2023	Challenge of Science Leadership ↗
Dec 2022	Interview Training
Jul 2020	Writing Workshop for Climate Scientists
Mar 2020	ESA JWST Master Class ↗
Jul 2019	ICTP Summer School on Convective Organization and Climate Sensitivity ↗
Apr 2018	Fortran Modernisation Workshop ↗
Jan 2018	Helicopter Underwater Escape Training Course (CA-EBS) ↗
Dec 2017	Sea Survival Course
Jun 2017	Weather Presenting
Feb 2017	Level 1 First Aid for Field Work Course
Jan 2017	Raspberry Pi Basics

Apr 2016   WWRP/WCRP/Bolin Center Polar Prediction School

Dec 2014   UK Met Office Unified Model Training

Vocational Experience

Apr–Jun 2018	Data Technician
	Processing of meteorological data collected in the IGP field campaign ☒ | University of East Anglia
2015–2018	Founder and Leader
	Python Users Group ☒ | University of East Anglia
Feb–Mar 2018	Member of the Meteorology Team
	The Iceland-Greenland Seas Project (IGP) field campaign | Akureyri, Iceland
Mar 2015	Rapporteur
	Dynamics of Atmosphere-Ice-Ocean Interactions in the High-Latitudes ☒ | Rosendal, Norway
Oct 2013	Research Intern
	Geophysical Institute | University of Bergen, Norway
Aug–Sep 2013	Trainee Forecaster
	Forecast and Briefing Service | Main Aviation Meteorological Centre, Vnukovo Airport
Jul 2012	Research Intern
	A.M. Obukhov Institute of Atmospheric Physics | Moscow, Russia