Denis Sergeev

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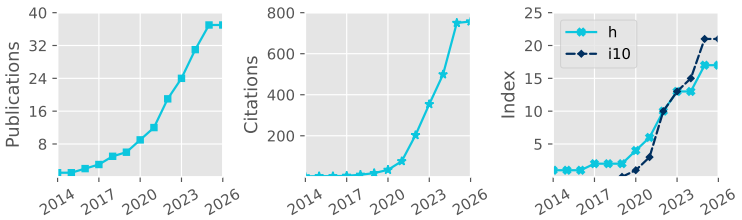

Total Pub.	**37**
Refereed	**36**
First Author	**8**
Citations	**757**
h-index	**17**

Updated: 8 Jan 2026

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

		Est. Total Value
Direct Funding, PI		
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		
2025	Meeting Organisation Funding (UKExoM 2026) | RAS	£2500
2025	Isambard 3 Allocation (30,000 node-hours; PI: N.J. Mayne) | UKRI (Isambard 3)	▪
2024	UKSA Studentships: Mars Exploration Science	∼£100 000
2024	Research Software Engineer Support | DiRAC HPC	∼£45 000
Observational Facilities Resources, co-I		
2023	JWST Cycle 2, 49.21 hours (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 and atmospheric evolution: #25, 28, 31, 32, 33, 36, 37
- How does atmospheric composition relate to the planet's history?

Model development and intercomparison: #12, 15, 16, 17, 18, 23, 30, 36
- How do we build robust and reproducible exoplanet models?

Publications

#	(preprints in **grey**)	Citations
37	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, MNRAS	**2**
36	Lichtenberg, T., Schaefer, L., Krissansen-Totton, J., Miguel, Y., et al. (incl. **Sergeev, D. E.**), 2025, Coupled atmospHere Interior modeL Intercomparison (CHILI) Protocol Version 1.0: A CUISINES Intercomparison Project of Magma Ocean Models, arXiv:2511.16142	▪
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	**8**
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	**22**
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	**25**
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	**9**
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	**1**
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	**14**
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	**7**
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.	**11**
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	**18**
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	**7**
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.	**14**
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.	**9**

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-induced chemistry on tidally-locked Earth-like exoplanets, MNRAS **19**

18 Christie, D. A., Lee, E. K. H., Innes, H., Noti, P. A., et al. (incl. **Sergeev, D. E.**), 2022, CAMEMBERT: A Mini-Neptunes General Circulation Model Intercomparison, Protocol Version 1.0.A CUISINES Model Intercomparison Project, Planet. Sci. J. **9**

17 **Sergeev, D. E.**, Fauchez, T. J., Turbet, M., Boutle, I. A., et al., 2022, The TRAPPIST-1 Habitable Atmosphere Intercomparison (THAI). II. Moist Cases-The Two Waterworlds, Planet. Sci. J. **72**

16 Turbet, M., Fauchez, T. J., **Sergeev, D. E.**, Boutle, I. A., et al., 2022, The TRAPPIST-1 Habitable Atmosphere Intercomparison (THAI). I. Dry Cases-The Fellowship of the GCMs, Planet. Sci. J. **60**

15 Fauchez, T. J., Villanueva, G. L., **Sergeev, D. E.**, Turbet, M., et al., 2022, The TRAPPIST-1 Habitable Atmosphere Intercomparison (THAI). III. Simulated Observables-the Return of the Spectrum, Planet. Sci. J. **54**

14 **Sergeev, D. E.**, Lewis, N. T., Lambert, F. H., Mayne, N. J., et al., 2022, Bistability of the Atmospheric Circulation on TRAPPIST-1e, Planet. Sci. J. **31**

13 Cohen, M., Bollasina, M. A., Palmer, P. I., **Sergeev, D. E.**, et al., 2022, Longitudinally Asymmetric Stratospheric Oscillation on a Tidally Locked Exoplanet, ApJ **15**

12 Fauchez, T. J., Turbet, M., **Sergeev, D. E.**, Mayne, N. J., et al., 2021, TRAPPIST Habitable Atmosphere Intercomparison (THAI) Workshop Report, Planet. Sci. J. **38**

11 Terpstra, A., Renfrew, I. A., & **Sergeev, D. E.**, 2021, Characteristics of Cold-Air Outbreak Events and Associated Polar Mesoscale Cyclogenesis over the North Atlantic Region, J. Cli. **29**

10 Renfrew, I. A., Barrell, C., Elvidge, A. D., Brooke, J. K., et al. (incl. **Sergeev, D.**), 2021, An evaluation 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. **72**

9 Eager-Nash, J. K., Reichelt, D. J., Mayne, N. J., Hugo Lambert, F., et al. (incl. **Sergeev, D. E.**), 2020, Implications of different stellar spectra for the climate of tidally locked Earth-like exoplanets, A&A **27**

8 **Sergeev, D. E.**, Lambert, F. H., Mayne, N. J., Boutle, I. A., et al., 2020, Atmospheric Convection Plays a Key Role in the Climate of Tidally Locked Terrestrial Exoplanets: Insights from High-resolution Simulations, ApJ **65**

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

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

5 **Sergeev, D.**, Renfrew, I. A., & Spengler, T., 2018, Modification of Polar Low Development by Orography and Sea Ice, Mon. Wea. Rev. **18**

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

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

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

1 Eliseev, A. V., & **Sergeev, D. E.**, 2014, Impact of subgrid-scale vegetation heterogeneity on the simulation of carbon-cycle characteristics, Izv. Atmos. Ocean. Phy. **9**

Conferences and Seminars

Invited Talks

Oct 2025 CUISINES — a framework for exoplanet model intercomparison projects
Atmospheric and interior evolution of planetary magma oceans | Leiden, the Netherlands

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

Nov 2025 Lightning climatology on rocky exoplanets in a global storm-resolving model
CTR Wilson Meeting on Atmospheric Electricity | Bath, UK
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 underlined.)

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 Mei Ting (Martha) Mak (U. Exeter)
Project: Hazes in Planetary Atmospheres
Co-supervisors: N. J. Mayne, J. Manners, E. Hébrard

MSc Supervision

Sep 2025–May 2026 **Freya Evans & Daisy Green**
Project: **Atmospheric Dynamics on Ice Giants**
Sep 2025–May 2026 **Catherine Kerr & Lily Odhuba**
Project: Lightning Storms on Earth-like Exoplanets
Jan 2023–May 2024 Tom Batchelor, Luke Benzing, & Alex McGinty
Project: Mars Atmosphere Modelling
Co-supervisors: M. Bate, N. J. Mayne, D. McCulloch
Sep 2020–Sep 2022 Danny McCulloch (MSci by Research)
Project: Climate Modelling of Modern-Day Mars

	Co-supervisors: M. Bate, N. J. Mayne
Apr 2021–Sep 2022	Meghan Plumridge (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 & Oakley Young 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

2026–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 Academic Service

Journals	Nat. Astron., MNRAS, Planet. Sci. J., Geophys. Res. Lett., ApJ, Planet. Space Sci., Q. J. R. Meteorol. Soc.
Funding	STFC Consolidated Grant, STFC ERF
Observations	James Webb Space Telescope General Observer Programs (Exoplanets & Disks, Cycles 3 & 4)
Membership	Royal Astronomical Society, Europlanet Society

Technical Skills

Numerical models	LFRic, Unified Model, SOCRATES, LAGRANTO, Isca
Programming languages	Python, 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