Dr Maria Zamyatina

Contact	\searrow	m.zamyatina@exeter.ac.uk 🎽 m_zamyatina 🖓 mzamyatina 🌐 mzamyatina.g	ithub io		
CONTACT		m.zaniyaoma@excoer.ac.uk = m.zaniyaoma ~ mzaniyaoma @ mzaniyaoma.g.	101100.10		
Academic career	De	epartment of Physics and Astronomy, University of Exeter Exeter, UK Adapting LFRic to model atmospheres of hot Jupiters ostdoctoral Research Fellow	Apr 2022-now Sep 2019-Apr 2022		
	De	epartment of Physics and Astronomy, University of Exeter Exeter, UK Modelling hot Jupiter atmospheric chemistry with the Met Office Unified Mod			
Education	Scl Su	aD in Environmental Sciences hool of Environmental Sciences, University of East Anglia Norwich, UK pervisors: Prof. Claire Reeves, Dr Paul Griffiths, Dr Marcus Köhler, Dr Mike I nesis: Impacts of C_1 - C_3 alkyl nitrates on tropospheric ozone chemistry	2015-2020 Newland		
	${ m Scl}$	Sc in Climate Change with Distinction hool of Environmental Sciences, University of East Anglia Norwich, UK pervisor: Prof. Claire Reeves nesis: Investigation of the relationship between tropospheric ozone production e and carbon bond emissions	2014-2015 fficiency		
	Fa Su	Decialist Diploma in Meteorology culty of Geography, Lomonosov Moscow State University Moscow, Russia pervisor: Prof. Alexander V. Kislov	2009-2014		
	Th	Chesis: Climatically-induced variations of the Caspian Sea level over the last Millennium			
5. 4.		 Taylor, J., Radica, M., Welbanks, L., MacDonald, R. J., et al. (incl. Zamyatina, M.) (2023). Awesome SOSS: atmospheric characterisation of WASP-96b using the JWST early release observations. MNRAS. Radica, M., Welbanks, L., Espinoza, N., Taylor, J., et al. (incl. Zamyatina, M.) (2023). Awesome SOSS: transmission spectroscopy of WASP-96b with NIRISS/SOSS. MNRAS. Zamyatina, M., Hébrard, E., Drummond, B., Mayne, N. J., Manners, J., et al. (2023). 			
		Observability of signatures of transport-induced chemistry in clear atmosphere exoplanets. MNRAS. Ridgway, R. J., Zamyatina, M., Mayne, N. J., Manners, J., Lambert, F. H.,	es of hot gas giant		
		3D modelling of the impact of stellar activity on tidally locked terrestrial exop atmospheric composition and habitability. MNRAS.	lanets:		
	2.	Christie, D. A., Lee, E. K. H., Innes, H., Noti, P. A., et al. (incl. Zamyatina, CAMEMBERT: A Mini-Neptunes GCM Intercomparison, Protocol Version 1.0 Model Intercomparison Project. Planet. Sci. J.			
	1.	Braam, M., Palmer, P. I., Decin, L., Ridgway, R. J., Zamyatina , M. , et al. (Lightning-induced chemistry on tidally-locked Earth-like exoplanets. MNRAS.			
Invited talks	Feb 2023	Atmospheric dynamics and chemistry on exoplanets University of Queensland (astronomy seminar) Brisbane, Australia University of Southern Queensland (exoplanet seminar) Brisbane, Australia University of New South Wales (astronomy seminar) Sydney, Australia			
	Nov 2022	Observability of signatures of wind-driven chemistry in atmospheres of hot gas Ludwig Maximilian University (exoplanet group seminar) Munich, Germany Celebrating JWST's first six months of exoplanet data workshop Ringberg ca			
		Modelling chemistry of hot Jupiter atmospheres with the Met Office Unified M Met Office Exeter, UK	fodel		
	Feb 2022	Transport-induced quenching shapes transmission spectra of warm and hot Ju University of Warwick (astronomy seminar) virtual	piters		
Contributed talks		Overview of the Met Office Unified Model adapted to simulate exoplanetary a Ariel consortium meeting virtual	tmospheres		
Ap	or, Sep 2021	3D simulations of warm and hot Jupiter atmospheres: the role of 3D mixing in shaping CH_4 -to-CO conversion pathways EPSC conference virtual UKEXOM conference virtual			

Mar	, Apr, Jun 2019	University of Exeter (astronomy seminar) Exeter, UK Impact of C_1 - C_3 alkyl nitrate chemistry on tropospheric ozone: box and global model perspectives		
		University of Exeter (XCS seminar) Exeter, UK EGU conference Vienna, Austria University of East Anglia (AMB seminar) Norwich, UK		
	Apr 2017	Adding new chemistry into UM-UKCA		
-		Cambridge-EnvEast doctoral alliance symposium Cambridge, UK		
	Sep 2012	Assessment of climatological potential of transboundary air pollution transp Siberia and the Russian Far East	ort in Eastern	
		Air quality management at urban, regional and global scales 4th internation symposium/IUAPPA regional conference Istanbul, Turkey	al	
Posters	Sep 2022	Applying known chemical kinetics data to model atmospheres of extrasolar p iCACGP-IGAC conference Manchester, UK	planets	
	Sep 2021	Local and global impacts of C_1 - C_3 alkyl nitrate photochemistry and emission ozone IGAC conference virtual	ns on tropospheric	
	Sep 2018	Impact of alkyl nitrate chemistry on tropospheric ozone		
	Mar Apr 2018	iCACGP-IGAC conference Takamatsu, Japan Impact of C_1 - C_5 alkyl nitrate chemistry on tropospheric ozone - a box mode	lling study	
	Mar, 11pr 2010	Cambridge-EnvEast doctoral alliance symposium Cambridge, UK; EGU conference Vienna, Austria	aning sourcey	
Awards		Above & Beyond Award		
		EPSRC vacation internship (for 3 interns) Jackson-Grime-Davies (JGD) research internship (for 1 intern)	12893.55£ 2428.71£	
		IGAC Early Career Scientist poster prize & travel grant	1227.70£	
		Lord Zuckerman studentship	112269.50£	
		Simon Wharmby postgraduate scholarship World Meteorological Organization travel grant	3000.00£ 1154.10£	
Awarded	•	Co-I JWST GO-3154 (PI: Eva-Maria Ahrer)	10.36 prime hours	
OBSERVING TIME	May 2023	Testing the C/O ratio prediction for hot Jupiters from disk-free migration Co-I JWST GO-3838 (PI: James Kirk Co-PI: Eva-Maria Ahrer) Does atmospheric composition actually trace formation?	49.21 prime hours	
		Observing aligned vs misaligned hot Jupiters as a testbed		
	•	Co-I JWST GO-3969 (PI: Nestor Espinoza, Co-PI: Diana Powell) Hot Jupiter atmospheric forecast:	61.53 prime hours	
	_	Are mornings cloudier than evenings in other worlds?		
		Co-I JWST GO-4082 (PI: Michael Radica, Co-PI: Jake Taylor) Putting it all together: Dynamics and chemistry probed through transmission spectroscopy of a cloud-free exoplanet	6.69 prime hours	
SUPERVISION Pr		imary supervisor and co-supervisor. Students who went on to do a PhD are r PhD supervision (2)	marked with $*$.	
	Sep 2023-now	Sophia Adams Thesis: TBD		
Nov 2020-May 2023		Co-supervisors: Prof. N. J. Mayne, TBD Robert J. Ridgway		
		Thesis: Simulating the impact of stellar flares on the climate and habitability. Earth–like exoplanets	y of terrestrial	
	Jun-Aug 2022	Co-supervisors: Prof. N. J. Mayne, Prof. F. H. Lambert, Dr. J. Manners Undergraduate and summer internship supervision (4) EPSRC-funded: <u>Harry Baskett</u> , <u>Ben Moore</u> *, <u>James McDermott</u> *; JGD-fund Project: 3D modelling of hot Saturn atmospheric chemistry	led: <u>Graig Lils</u>	
Teaching	Jul 2023	Module leader		
		Module: No place like home: placing Earth in its geological and astronomica		
Jul 2022, Jul 2023		International sustainability summer school University of Exeter, Exeter, UI	Δ.	
J U.	2022, our 2020	Module: No place like home: placing Earth in its geological and astronomica International sustainability summer school University of Exeter, Exeter, UI		

Sep 2	Jan 2018	Associate Tutor Modules: Experimental science, Frontiers in science University of Exeter Exeter, UK Instructor Module: Introduction to Python in environmental sciences University of East Anglia Norwich, UK Associate Tutor		
	2013-2018	Modules: Numerical skills for scientists, Atmospheric chemistry and global change, Atmospheric composition (measurements and modelling), Atmosphere & oceans I University of East Anglia Norwich, UK		
VOCATIONAL	Mar 2023	Leadership training		
TRAINING	Dec 2022	Interview training		
		JWST proposal planning workshop		
	-	NAME workshop		
		Introduction to UKCA		
		Introduction to Unified Model		
		Introduction to Atmospheric Science		
	2015-2019	EnvEast Doctoral Training Programme		
Academic		Organisation of scientific meetings		
COMMUNITY 26-30 Jun 2023		Exoclimes VI conference (LOC member)	~ 200 attendees	
		University of Exeter Exeter, UK		
22	2-24 Jun 2023	ExoSLAM school (LOC member)	~ 50 attendees	
		University of Exeter Exeter, UK		
5-6 Dec 2022		BOWIE meeting [JWST proposal brainstorming] (co-organiser)	17 attendees	
		University of Exeter Exeter, UK		
Sep 2017-Jun 2018		Atmospheric and Marine Biogeochemistry (AMB) seminars (co-organiser)	~ 20 attendees	
		University of East Anglia Norwich, UK		
		Reviewing		
		Journals: The Astrophysical Journal		

Outreach

Nov 2015-Jun 2019 @AtmosChemUEA Twitter account (maintainer)