

GCRF Directory – V3 (081018)

	Last_Name	First_Name	University	Country	Email	Research Interests/Areas of Expertise
				(blank=UK)		
1	<b>Arya</b>	D S	Department of Hydrology, IIT Roorkee	India	<a href="mailto:dsarya@gmail.com">dsarya@gmail.com</a>	Water and climate modelling. Case I - in hydrology, data is assumed stationary and random. Under the climate change scenario, this very assumption is challenged and hydrological modelling tools are needed new methodology and techniques. So, there is scope for mathematician to work and design tools and techniques. Case II - there is a scope for creating new information, methods etc for hydro services in the Himalayan region following problems are important: large data set available but have different temporal and spatial resolution. So, upscaling/downscaling is required to bring data to a common scale. Bring data to common scale introduces uncertainty which must be addressed. Newer search algorithms are required to identify and predict extreme events using these large data sets as mentioned above. Very simple analysis leading to study of climate change/variability may also be attempted. New modelling tools may be designed to accept these large gridded data set as inputs rather than the point data inputs.
2	<b>Bortolozo</b>	Cassiano	CEMADEN, Brazil	Brazil	<a href="mailto:cassianoab@gmail.com">cassianoab@gmail.com</a>	My research interests are related to geophysical modelling an inversion, electromagnetic methods, mass movements prediction and slope stability. My expertise is related to electromagnetic methods modelling and inversion, joint inversion of geophysical methods, hydrogeology and mass movements (landslides)

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3	<b>Chami</b>	Goylette	Department of Pathology, University of Cambridge		<a href="mailto:gjc36@cam.ac.uk">gjc36@cam.ac.uk</a>	<p>Global health</p> <ul style="list-style-type: none"> <li>• Geographical focus is sub-Saharan Africa; key study sites- Lake Victoria &amp; Lake Albert in Uganda</li> <li>• Identification of morbidity attributable to human helminthiasis (worms) and methods to improve large-scale treatment campaigns</li> <li>• Targeted delivery of global health interventions</li> <li>• Computational medicine</li> <li>• Complex networks: social networks, spatial, transmission, and comorbidity networks</li> <li>• Randomised-controlled trials, quasi-experimental analyses</li> <li>• Artefactual/behavioural experiments</li> </ul>
4	<b>Chansomphou</b>	Vatthanamixay	Faculty of Environmental Sciences, National University of Laos	Laos	<a href="mailto:vatthanamixay@hotmail.com">vatthanamixay@hotmail.com</a>	<p>I'm interested in using mathematical models for analysing the issues of development and the environment. More specifically, it is the use of mathematical models and analysis such as: general equilibrium analysis, dynamic optimization, differential equation, time series and econometric analysis and operation research tools to study about development planning, environmental impact of economic development, the impact climate change tec.</p>
5	<b>Chen</b>	Bo	University of Warwick	UK	<a href="mailto:b.chen@warwick.ac.uk">b.chen@warwick.ac.uk</a>	<p>combinatorial optimization; scheduling and transportation; game theory with mechanism design</p>
6	<b>Dunne</b>	Patrick	ESSA - Education Sub-Saharan Africa	UK	<a href="mailto:patrick@essa-africa.org">patrick@essa-africa.org</a>	<p>Education, Africa, Mathematics</p>

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7	<b>Esposito-Amideo</b>	Annunziata	Kent Business School		<a href="mailto:ae306@kent.ac.uk">ae306@kent.ac.uk</a>	doctoral activity concerning the development of novel optimization models and solution methods for disaster management. Research focus on evacuation planning and critical infrastructure protection.
8	<b>Glendinning</b>	Paul	ICMS, University of Manchester		<a href="mailto:p.a.glendinning@manchester.ac.uk">p.a.glendinning@manchester.ac.uk</a>	Pure and applied dynamical systems. Includes biophysical applications and piecewise smooth systems
9	<b>Griffiths</b>	Ian	University of Oxford	UK	<a href="mailto:ian.griffiths@maths.ox.ac.uk">ian.griffiths@maths.ox.ac.uk</a>	Fluid mechanics, with application to water purification in developing countries. Slow viscous flow with application to glass manufacture. Filtration in industrial settings including vacuum cleaners and sulphur dioxide removal. Liquid crystal microfluidics. Food science, including manufacture of cereals and operation of food processors and blenders.
10	<b>Kibble</b>	Milla	DAMTP, University of Cambridge		<a href="mailto:mmk60@cam.ac.uk">mmk60@cam.ac.uk</a>	PhD in High-dimensional convex geometry (Pure Mathematics, 2000). Applications of mathematical methods to derive insights from large data sets, with a focus on biological data in the field of disease prevention. Currently also working in an academic-related role as Research Facilitator at DAMTP, with an interest in how to advance the use of mathematical research to tackle global developmental challenges and strengthen mathematics in low-income countries.

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11	Kirkilionis	Markus	University of Warwick		<a href="mailto:mak@maths.warwick.ac.uk">mak@maths.warwick.ac.uk</a>	<p><u>Mathematical modelling</u> - interest in the general applicability of mathematical models, including philosophy of science aspects. Interest in the interface of mathematical modelling with data science, machine learning, artificial intelligence and computing (HPC). <u>Mathematical biology</u> - all aspects of applications of mathematics to the Life Sciences, including bioinformatics and Image analysis.</p> <p><u>Numerical Analysis</u> interest in transforming mathematical modes into numerical simulations.</p>
12	Lucarini	Valerio	University of Reading	UK	<a href="mailto:v.lucarini@reading.ac.uk">v.lucarini@reading.ac.uk</a>	<p>Climate Dynamics; Mathematics of Climate; Extreme Events; Climate Change; Dynamical Meteorology; Hydro climatology; Tipping Points; Monsoonal Dynamics</p> <p>Regional Interest: Europe (whole); Atlantic Sector; Central and South Asia</p>
13	Madzvamuse	Anitoda	University of Sussex		<a href="mailto:A.Madzvamuse@sussex.ac.uk">A.Madzvamuse@sussex.ac.uk</a>	<p>Research interests - mathematical modelling based on experimental observations, analysis (mathematical &amp; numerical) of mathematical models. Numerical analysis and simulations, HPC scientific computing, Data fitting and parameter identification. Areas of expertise, cell motility/cell migration, spatio-temporal models (ODEs &amp; PDEs), numerical algorithm development, pattern formation, wound healing.</p>

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14	<b>Mauk</b>	Pheakdei	Royal University of Phnom Penh	Cambodia	pheakdei@gmail.com	operational research/applied probability and statistics: mathematical modelling of microcredit to investigate the behaviour of interest rate in microcredit lending
15	<b>Mondal</b>	Sourav	IIT Kharagpur	India	smondal@che.iitkgp.ac.in	Flow in porous media, Mass transport, membrane separation, adsorption
16	<b>Morupisi</b>	Kgomotso Susan	University of Bath		ksm32@bath.ac.uk	Dynamical systems, mathematical modelling. Using mathematical modelling to predict the amount of rainfall that can be received by certain areas. Also to come up with models that can depict how climate change effects food production or agriculture in Botswana.
17	<b>Moyo</b>	Isabel	National University of Science and Technology, Zimbabwe	Zimbabwe	<a href="mailto:ilzulu82@gmail.com">ilzulu82@gmail.com</a>	Financial modelling using bayesian networks. Reliability models (markov chains), econometric modelling and multivariate analysis, time series analysis. Mentoring students/life coaching. Also considering climate change modelling and its impact on our economies, i.e. agriculture, tourism, sustainability.
18	<b>Ndifon</b>	Wilfred	African Institute of Mathematical Sciences		<a href="mailto:wndifon@nexteinstein.org">wndifon@nexteinstein.org</a>	Theoretical biology - using data and mathematics to understand the mechanisms that govern immune response to diseases. Applications, including improved diagnostics and vaccines. Examples of projects on - using math modelling (ODE-based) to explain surprising aspects of immune responses to infections such as original antigenic sin, What is health? Developing a quantitative definition and measure of health

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19	<b>Neumann</b>	Frank	University of Leicester		<a href="mailto:fn8@le.ac.uk">fn8@le.ac.uk</a>	Research interests - pure mathematics (algebraic geometry, algebraic topology, number theory). I am especially interested in the arithmetic, geometry and topology. I am a board member for the LMS-IMU-AMMSI initiative mentoring African Researchers for Mathematics (MARM) and I was a mentor for the programme at KUUST, Ghana. I am a board member for the EMS Committee for Solidarity
20	<b>Pan-ngum</b>	Wirichada	Mahidol-Oxford Tropical Medicine Research Unit, Bangkok	Thailand	<a href="mailto:pan@tropmedres.ac">pan@tropmedres.ac</a>	I am a mathematical modeller with interests in neglected tropical diseases and zoonotic infections. I have been using maths models to tackle health problems specifically arising in the region (Leptospirosis, dengue, malaria). I am keen on capacity building and enjoy training local modellers
21	<b>Roberts</b>	Mark	University of Surrey		<a href="mailto:M.Roberts@surrey.ac.uk">M.Roberts@surrey.ac.uk</a>	Previous research - dynamical systems, Hamiltonian system & applications. Current research - population genetics. Other relevant experience - work in higher education in Africa. Leadership of postgraduate training programmes.
22	<b>Santos</b>	Leonardo	Cemaden	Brazil	<a href="mailto:santoslbl@gmail.com">santoslbl@gmail.com</a>	My scientific production in recent years has been focused on interfaces between Mathematic and Disaster Risk Reduction. In 2016 the Thematic Committee "Mathematics & Disaster Risk Reduction" was created, under my coordination, within the scope of the Brazilian Society of Applied and Computational Mathematics (SBMAC). In 2017, I was one of the organizers of the International Workshop on Mathematics of Climate Change and Natural Disasters, a meeting co-funded by Newton Fund. My principal current research involves geographical complex networks for critical infrastructures, especially for vulnerability analysis (both deterministic and stochastic). Also, I have been worked with Geographical Information Systems and Machine Learning, to support strategies for Disaster Risk Reduction.

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23	<b>Scappara</b>	Maria Paola	Kent Business School, University of Kent			Application of optimization techniques to critical infrastructure protection planning, disaster management and humanitarian logistics among others.
24	<b>Siddiqui</b>	Nadia	Durham University, School of Education		<a href="mailto:nadia.siddiqui@durham.ac.uk">nadia.siddiqui@durham.ac.uk</a>	Inequalities in education and assessing barriers to access quality education.
25	<b>Stern</b>	Roger	University of Reading		r.d.stern@reading.ac.uk	Improving teaching of statistics. The analysis of historical climate data.
26	<b>Tangang</b>	Fredolin	National University of Malaysia	Malaysia	tangang@ukm.edu.my; ftangang@gmail.com	My research interest covers climate variability (ENSO, Monsoon, IOD, MJO, various mesoscale phenomena such as cold surges, Borneo vortices) and Climate change. Expertise regional climate modelling, model data analysis. I also provide leadership in the region in trying to build up capacity in regional climate modelling in the Southeast Asia region through the Southeast Asia Regional Climate Downscaling (SEACLID)/CORDES Southeast Asia. I am also interested in regional oceanography, regional ocean and wave modelling

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27	<b>Vargas</b>	Patricia	Heriot Watt University		<a href="mailto:p.a.vargas@hw.ac.uk">p.a.vargas@hw.ac.uk</a>	my area of expertise is robotics and computer science, more specifically building intelligent controllers for robots within a wide range of applications, from healthcare, energy, surveillance, neuroscience, space, environment, agriculture, monitoring. We use a plethora of bio-inspired algorithms, computational intelligence, machine learning, deep learning, reinforcement learning, computational neuroscience and evolutionary computation
28	<b>Wei</b>	Liu	University of Sheffield		<a href="mailto:w.liu@sheffield.ac.uk">w.liu@sheffield.ac.uk</a>	Signal Modelling and Processing and Its Applications, especially multi-sensor based systems.