
Contact Address:	UK Centre for Ecology & Hydrology (UKCEH) Maclean Building, Benson Lane, Crowmarsh Gifford, Wallingford, Oxfordshire, OX10 8BB
Profession / Specialisation:	Hydrologist Data Scientist
Job Title:	Research Associate

Professional and Educational Qualifications

PhD Atmospheric Sciences	Jawaharlal Nehru University	2015
MSc Environmental Studies	TERI University	2009
BSc Zoology (Hons.)	Delhi University	2007

Summary of Professional Expertise

Amulya Chevuturi is a Hydrological Data Scientist at UKCEH, Wallingford with expertise in understanding global precipitation and its variability under current and future climate, evaluating model forecast skill and uncertainty, investigating rainfall related hazards (floods and droughts). She is currently contributing to multiple projects at UKCEH, e.g., UK rainfall datasets (Hydro-JULES), blending global hydrological products (HydroSOS) and UK droughts (CANARI). She previously worked as a PDRA at NCAS, University of Reading, where she was involved in various projects with a focus on floods and drought forecasting, monsoon and its onset, tropical precipitation forecasts, spatial and temporal scales of precipitation variability, hydrological cycle and climate change. During her Ph.D., she simulated and analysed extreme precipitation events over India, including western disturbances, cloudbursts and hailstorms; events which may lead to secondary impacts like flash floods. She has 11 first-author peer-reviewed papers, 12 co-author peer-reviewed publications, 2 first-author edited book chapters and 1 co-author book publication, and has an h index of 10. She has formed strong collaborations with scientist from all over the world (e.g. ECMWF, UK, India Meteorological Department, India, Peking University, China, National Institute of Amazonian Research, Brazil). She has engaged with media to disseminate information about her research work. She has teaching experience in computing and climate sciences and has supervised Masters and Bachelors student dissertations.

Employment History

2021	- Present	Research Associate, UKCEH
2016	- 2021	Post-Doctoral Research Assistant, National Centre for Atmospheric Science
2009	- 2010	Guest lecturer, Lady Irwin College, Delhi University
2009	- 2009	Environmental Consultant, Emergent Ventures India

Selected Work Experience

2022	- 2025	Task lead in NC-International for global hydrological forecasts
2022	- 2025	Task lead in CANARI project for UK drought analysis
2022	- 2025	Researcher in STARS4Water
2022	- 2023	Researcher in Digital Twin project for UK
2021	- 2023	Researcher in Hydro-JULES project as data scientist
2022	- 2022	Researcher in eFLaG project for spatial coherence of UK droughts
2021	- 2022	Researcher in HydroSOS project for global hydrological forecasts
2021	- 2022	Co-PI in CSSP Brazil project proposal - PEACFLOW 2
2021	- Present	NFRA representative for Wales
2020	- 2020	Co-PI in NERC REP - Forecasting flash droughts at subseasonal timescale
2020	- 2021	Co-PI in CSSP Brazil project proposal - PEACFLOW
2019	- 2019	Co-PI in UROP - The "Indian Easterly Jet"

Memberships of Committees, Boards, Etc

2022	Member of British Hydrological Society
2017	Fellow of Royal Meteorological Society (FRMetS)

Selected Publications

Chevuturi A, Klingaman NP, Rudorff CM, Coelho CAS, Schongart J (2021) Forecasting annual maximum water level for the Negro River at Manaus. *Climate Resilience and Sustainability*, <https://doi.org/10.1002/cli2.18>

Feng X, Zhang W, Zhu Z, **Chevuturi A**, Chen W (2021) Variability and changes in Pearl River Delta water level, from the ocean and atmosphere perspectives. *Journal of Hydrometeorology*, <https://doi.org/10.1175/JHM-D-21-0037.1>.

Chevuturi A, Turner AG, Johnson S, Weisheimer A, Shonk J, Stockdale TN, Senan R (2021) Seasonal forecasting skill of the Indian monsoon and its onset in the ECMWF seasonal forecasting system 5 (SEAS5). *Climate Dynamics*, <http://doi.org/10.1007/s00382-020-05624-5>

Klingaman NP, Young M, **Chevuturi A**, Guimaraes B, Guo L, Woolnough SJ, Coelho CAS, Kubota PY, Holloway CE (2021) Sub-seasonal prediction performance for austral summer South American rainfall. *Weather & Forecasting*, 36: 147-169, <http://doi.org/10.1175/WAF-D-19-0203.1>

Cui J, Piao S, Huntingford C, Wang X, Lian X, **Chevuturi A**, Turner AG, Kooperman GJ (2020) Vegetation forcing modulates global monsoon and water resources in a CO₂-enriched climate, *Nature Communications*, 11: 5184, <http://doi.org/10.1038/s41467-020-18992-7>

Shonk J, Turner AG, **Chevuturi A**, Wilcox L, Dittus A, Hawkins E (2020) Uncertainty in aerosol radiative forcing impacts the simulated global monsoon in the 20th century, *Atmospheric Chemistry and Physics*, <http://doi.org/10.5194/acp-20-14903-2020>

Guo L, van der Ent RJ, Klingaman NP, Demory M-E, Vidale PL, Turner AG, Stephan CC, **Chevuturi A** (2020) Effects of horizontal resolution and air-sea coupling on simulated moisture sources for regional East Asian precipitation. *Geoscientific Model Development*, <http://doi.org/10.5194/gmd-13-6011-2020>.

Monerie P-A, **Chevuturi A**, Cook P, Klingaman NP, Holloway CE (2020) Role of atmospheric horizontal resolution in simulating tropical and subtropical South American precipitation in HadGEM3-GC31. *Geoscientific Model Development*, <http://doi.org/10.5194/gmd-13-4749-2020>.

Guo L, van der Ent RJ, Klingaman NP, Demory M-E, Vidale PL, Turner AG, Stephan CC, **Chevuturi A** (2019) Moisture sources for East Asian precipitation: mean seasonal cycle and interannual variability, *Journal of Hydrometeorology*, 20: 657–672, <http://doi.org/10.1175/JHM-D-18-0188.1>.

Martin GM, **Chevuturi A**, Comer RE, Dunstone N, Scaife AA, Zhang D (2019) Predictability of South China Sea Summer Monsoon onset, *Advances in Atmospheric Sciences*, 36(3): 253-260, <http://doi.org/10.1007/s00376-018-8100-z>. **AAS Esteemed Original Paper Prize 2021.**

Chevuturi A, Turner AG, Woolnough SJ, Martin G, MacLachlan C (2019) Indian summer monsoon onset forecast skill in the UK Met Office initialized coupled seasonal forecasting system (GloSea5-GC2). *Climate Dynamics*, 52: 6599-6617, <http://doi.org/10.1007/s00382-018-4536-1>.

Chevuturi A, Klingaman NP, Turner AG, Hannah S (2018) Projected changes in the Asian-Australian monsoon region in 1.5°C and 2.0°C global-warming scenarios. *Earth's Future*, 6: 339-358, <http://doi.org/10.1002/2017ef000734>. **Journal's top cited paper in 2018-2019**

Chevuturi A, Dimri AP, Thayyen RJ (2018) Climate Change over Leh (Ladakh), India. *Theoretical and Applied Climatology*, 131(1–2): 531–545, <http://doi.org/10.1007/s00704-016-1989-1>

Dimri AP, **Chevuturi A**, Niyogi D, Thayyen RJ, Ray K, Tripathi SN, Pandey AK, Mohanty UC (2017) Cloudbursts in Indian Himalayas: A review. *Earth-Science Reviews*, 168: 1-23, <http://doi.org/10.1016/j.earscirev.2017.03.006>.

Chevuturi A, Dimri AP (2016) Investigation of Uttarakhand (India) disaster- 2013 using Weather Research and Forecasting model. *Natural Hazards*, 82(3): 1703–1726, <http://doi.org/10.1007/s11069-016-2264-6>

Dimri AP, **Chevuturi A** (2016) Western Disturbances – An Indian Meteorological Perspective. Springer International Publishing, <http://doi.org/10.1007/978-3-319-26737-1>.

Chevuturi A, Dimri AP, Gunturu UB (2014) Numerical simulation of rare winter hailstorm event over Delhi, India on 17 Jan 2013. *Natural Hazards & Earth System Sciences*, 14: 3331-3344, <http://doi.org/10.5194/nhess-14-3331-2014>.
