Curriculum Vitae

Midhun Madhavan

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Nationality	Indian
Date of Birth	27 May 1988

Employment

2/2018 to present	Assistant Professor, Department of Atmospheric Sciences, Cochin University of Science and Technology, India
7/2017-2/2018	Post doctoral fellow at School of Earth and Planetary Sciences, National institute of Science Education and Research, Bhubaneswar, India
3/2016 – 2/2017	Post doctoral fellow at *The Millennium Nucleus in "Paleoclimate of the Southern Hemisphere"* at Department of Geophysics, University of Chile, Santiago.
7/2015 – 2/2016	Postdoctoral fellow at Geosciences Division, Physical Research Laboratory, Ahmedabad, India.
7/2010 – 6/2015	Research fellow and PhD candidate at Geosciences Division, Physical Research Laboratory, Ahmedabad, India. Thesis: Stable Water Isotopologues in the Indian Summer Monsoon Rainfall. Supervisor: Prof. Rangaswamy Ramesh

Education

2015	PhD, Indian Institute of Technology Gandhinagar, India
2010	MSc Meteorology, Cochin University of Science and Technology, Kochi, India
2008	BSc Physics, University of Calicut, India

Research Interests

Paleoclimate, Climate modelling, Stable water isotopes in hydrological cycle, Indian Monsoon, Data-model synthesis, Climate dynamics

Research Skills

Models	NCAR's CESM (Community Earth System Model) NCEP's G-RSM (Global/Regional Spectral Model)
Laboratory skills	Stable isotope ratio mass spectrometer 1. Europa Geo 20-20 2. Thermo Delta-V-Plus
Software/programming	CDO, NCO, MATLAB, GrADS, MS-Office, bash scripting, FORTRAN

Publications

1. **Midhun M**, Lekshmy PR, Ramesh R, Kei Yoshimura, Sandeep KK, Samresh Kumar,Rajiv Sinha, Ashutosh Singh and Shalivahan Srivastava (2018) The effect of monsoon circulation on the stable isotopic composition of rainfall, *Journal of Geophysical Research – Atmospheres*, doi: 10.1029/2017JD027427

2. PR Lekshmy, **M. Midhun** and R. Ramesh (2018) Influence of stratiform clouds on δD and $\delta^{18}O$ of monsoon water vapour and rain in a tropical coastal stations, *Journal of Hydrology*, doi: 10.1016/j.jhydrol.2018.06.001.
3. A.H. Laskar, R. Ramesh, J. Burman, **M.Midhun**, M.G. Yadava, R.A. Jani, Naveen Gandhi 2015; Stable Isotopic Characterization of Nor'westers of Southern Assam, North East India, *Journal of Climate Change 1, 75-87* (http://doi.org/10.3233/JCC-150006)
4. Lekshmy P.R, **Midhun M** and R Ramesh 2015; Spatial variation of amount effect over peninsular India and Sri Lanka: role of seasonality, *Geophysical Research Letters 42* (http://dx.doi.org/10.1002/2015GL064517)
5. **Midhun M** and R Ramesh 2015; Validation of $\delta^{18}O$ as a proxy for past monsoon rain by multi-GCM simulations, *Climate Dynamics* (http://dx.doi.org/10.1007/s00382-015-2652-8)
6. Lekshmy P.R , **Midhun M**, Ramesh R and R A Jani 2014; ^{18}O depletion in monsoon rain relates to large scale organized convection rather than the amount of rainfall, *Scientific Reports, 1-5* (http://www.nature.com/articles/srep05661)
7. **Midhun M**, Lekshmy P.R , and R Ramesh 2013; Hydrogen and oxygen isotopic compositions of water vapor over the Bay of Bengal during monsoon, *Geophysical Research Letters 40, 6324-6328* (http://dx.doi.org/10.1002/2013GL058181)

Conference presentations

1. **M.Midhun** and R.Ramesh 2015; Validation of $\delta^{18}O$ as a proxy for past monsoon rain by multi-GCM simulations *National Climate Science Conference, July 2-3, 2015, Divecha Center for Climate Change, Indian Institute of Science, Bangalore, India*
2. P.R.Lekshmy, **M.Midhun** and R.Ramesh 2015;Amount effect in peninsular India and Sri Lanka aids the choice of ^{18}O based monsoon proxy sites, *National Climate Science Conference, July 2-3, 2015, Divecha Center for Climate Change, Indian Institute of Science, Bangalore, India*.
3. P.R.Lekshmy, **M.Midhun** and R.Ramesh 2015; Rain- vapour isotopic interaction over the south-west coast of India, *EGU General Assembly 2015, Vienna, Austria* (http://meetingorganizer.copernicus.org/EGU2015/EGU2015-6478-1.pdf)
4. **M.Midhun**, P.R.Lekshmy and R.Ramesh 2015; Short-term variability of Indian summer monsoon rainfall $\delta^{18}O$, *EGU General Assembly 2015, Vienna, Austria* (http://meetingorganizer.copernicus.org/EGU2015/EGU2015-6477-2.pdf)
5. **M.Midhun**, R.Ramesh; Stable Water Isotopologues in Indian Summer Monsoon Rainfall: A comparison between SWING2 model simulations and observations 13^{th} *International Regional Spectral Model workshop 2014, Yokohama,Japan*
6. P.R.Lekshmy, **M.Midhun**, R.Ramesh and R.A.Jani 2013; Is the isotopic composition of rainfall of the south west coast of India Independent of local rainfall amount? *Proceedings of 12th ISMAS Triennial International Conference on Mass Spectrometry-2013, pp 306-308*
7. **M.Midhun**, P.R.Lekshmy, R.Ramesh and R.A.Jani 2013; Stable isotopic composition of atmospheric vapor over the bay of Bengal and its relation with ocean surface conditions, *Proceedings of 12th ISMAS Triennial International Conference on Mass Spectrometry-2013, pp 318-320*
8. **M.Midhun**, A.Kesarker, R.Ramesh; Simulation of Stable hydrogen and oxygen isotopes in Indian monsoon precipitation using IsoGSM. *National Space Science Symposium, 2012, Tirupati, India*.

Field Experience

8/2012	Sagar Kanya Cruise #296, collected water vapour samples
11/2013	Sagar Nidhi Cruise #082, collected water vapour samples
6/2013-10/2013	A network of six stations established over central and northern India and collected daily rain water for isotopic analysis during Indian summer monsoon

Training School participated

8/2016	Community Earth System Model Tutorial, *NCAR, CO, USA*
6/2014	Isotopes in Spatial Ecology and Biogeochemistry (SPATIAL short course) *held at University of Utah, UT, USA*
1/2014	Training Program On Climate Science *held at Divecha Centre For Climate Change, Indian Institute Of Science Banglore, India*
6/2013	Interdisciplinary Summer School: Data Assimilation in Geosciences *held at CSCAMM, University of Maryland, College Park, MD, USA*
3/2013	Summer School on Basics of Atmospheric Sciences *held at Sri Venkateswara University, Tirupati, India*
2/2013	ICTS program on Advanced Dynamical Core Modeling for Atmospheric and Oceanic Circulations *held at the National Atmospheric Research Laboratory, Gadanki, India*
7/2011	School on "Dynamics and forecasting of the Indian Summer Monsoon" *held at Indian Institute of Technology Delhi, India*