

DEEPAK A. CHERIAN

- Education**
- 2016: Ph.D., MIT-WHOI Joint Program in Oceanography, Physical Oceanography
 - 2010: M.Tech. & B.Tech. (Hons.), Ocean Engineering & Naval Architecture, Indian Institute of Technology, Kharagpur.
- Positions**
- 2020 Jan – present: Project Scientist I, National Center for Atmospheric Research
 - 2019 Mar – 2020 Jan: Postdoctoral Fellow, National Center for Atmospheric Research
 - 2017 Jan – 2019 Mar: Research Associate (Post-Doc), Oregon State University
 - 2016 Sep – 2017 Jan: Postdoctoral Investigator, Woods Hole Oceanographic Institution
 - 2010–2016: Graduate research assistant, Massachusetts Institute of Technology & Woods Hole Oceanographic Institution
- Articles**
- Rypina, I.I., Pratt, L.J., Entner, S., Anderson, A., **Cherian, D.A.** (2020). “The Influence of an Eddy in the Success Rates and Distributions of Passively Advected or Actively Swimming Biological Organisms Crossing the Continental Slope”. *Journal of Physical Oceanography* 50 (7): 1839–1852.
 - Cherian, D.A.**, Shroyer, E.L., Wijesekera, H.W. and Moum, J.N. (2020). “The seasonal cycle of upper-ocean mixing at 8°N in the Bay of Bengal”. *Journal of Physical Oceanography* 50: 323–342
 - Cherian, D.A.** and Brink, K.H. (2018). “Shelf flows forced by deep-ocean anticyclonic eddies at the shelfbreak”. *Journal of Physical Oceanography*. 48 (5): 1117–1138
 - Cherian, D.A.** and Brink, K.H. (2016) “Offshore Transport of Shelf Water by Deep-Ocean Eddies.”, *Journal of Physical Oceanography* 46 (12): 3599–3621
 - Brink, K.H. and **Cherian, D.A.** (2013) “Instability of an idealized tidal mixing front: Symmetric instabilities and frictional effects.” *Journal of Marine Research* 71 (6): 425–450.
 - Haine, T.W.N. and **Cherian, D.A.** (2013) “Analogies of Ocean/Atmosphere Rotating Fluid Dynamics with Gyroscopes: Teaching Opportunities.” *Bull. Amer. Meteor. Soc.* 94: 673–684.

- Funding** 2019-2022 NASA Physical Oceanography, **lead-PI**, \$483k
Co-Is: Emily Shroyer (OSU), Jonathan Nash (OSU)
“Relating SSHA-derived Eddy Diffusivity to In-situ Estimates from Microstructure and ECCO.”
- Invited Talks** 2019 Jun: “When a deep-ocean eddy meets shelf-slope topography.”
Gordon Research Conference, Coastal Ocean Dynamics.
- Talks & Posters** “*An off-equatorial deep cycle of turbulence forced by Tropical Instability Waves in the equatorial Pacific*” – presented at
2020 : University of British Columbia, Physical Oceanography Seminar
(talk) AGU Ocean Sciences Meeting, 2020 - San Diego
“*The seasonal cycle of upper-ocean mixing in the Bay of Bengal*” – presented at
2019 : Massachusetts Institute of Technology, Sack Lunch Seminar
Woods Hole Oceanographic Institution, Physical Oceanography Seminar
National Center for Atmospheric Research, CGD seminar
Oregon State University, CEOAS seminar
2018 : (poster) Gordon Research Conference, Ocean Mixing
(talk) AGU Ocean Sciences Meeting, 2018 - Portland
“*Shelf flows forced by mesoscale eddies at the shelfbreak*” – presented at
2017 : (poster) Gordon Research Conference - Coastal Ocean Dynamics
“*Offshore export of shelf water by deep-ocean eddies*” – presented at
2017 : National Taiwan University
Oregon State University, CEOAS seminar
2016 : Indian Institute of Science, College of Ocean and Atmospheric Sciences
(talk) AGU Ocean Sciences Meeting, 2016 - New Orleans
“*Arresting an eddy’s cross-isobath translation*” – presented at
2016 : Oregon State University, CEOAS seminar
Massachusetts Institute of Technology, Sack Lunch Seminar
2015 : (talk, poster) Gordon Research Conference - Coastal Ocean Modeling
- Software** Core developer of Python package `xarray`.
Extensive experience with parallel analysis of large datasets using scientific Python packages on HPC and cloud computing systems e.g. Dask, NumPy, Pandas, `xarray`; extensive experience with MATLAB

- Outreach & Service** Reviewer for Ocean Science, Geophysical Research Letters, Journal of Geophysical Research - Oceans, Journal of Marine Research and Journal of Physical Oceanography.
Conducted rotating tank lab demonstrations for broad audience (public, scientists, students – graduate and K-12) at WHOI GFD Open Days, 2013.
- Teaching** 2020 Ocean Hack Week: Invited tutorial on python package `xarray`
2019 Project Mentor, Monsoon Air-Sea Interactions Winter School. International Center for Theoretical Studies, Bangalore, India
2017 Winter Term: Guest Lecture for “Geophysical Waves”, (graduate level course), Oregon State University
2014 Fall semester: Teaching Assistant, “Observational Physical Oceanography” (graduate level course), Massachusetts Institute of Technology.
2013 Jan: Lecturer, Four lectures on “Physical Oceanography”, WHOI Winter Semester for Undergraduates
- Additional Training** 2020 Diversity leadership training summit organised by UCAR Human Resources and the Office for Diversity, Equity and Inclusion.
2014 Coastal and Estuarine Field Methods Summer School, Woods Hole Oceanographic Institution
2013 Teaching Certificate Program, Massachusetts Institute of Technology
2012 Estuarine and Coastal Fluid Dynamics Summer School, University of Washington Friday Harbor Laboratories
- Fieldwork** 2018 Sep: *R/V Thomas G. Thompson*, Western Pacific. PI: Jim Moum (OSU)
2017 Feb: *R/V Roger Revelle*, South China Sea. PI: Lou St-Laurent (WHOI)
2014 July: *R/V Tioga*, off Martha’s Vineyard. (student-run cruise for summer school) PI: Deepak Cherian, Jonathan Fincke, Cara Manning (WHOI).
2013 Nov: *R/V Roger Revelle*, Bay of Bengal. PI: Emily Shroyer (OSU)
2011 July: *SSV Corwith Cramer*, Middle Atlantic Bight. PI: Donglai Gong (WHOI)