

# Siddhant Kerhalkar

UMass Dartmouth

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| <https://kerhalkarsid.github.io/>

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## PROFILE

A sea-going physical oceanographer unearthing upper ocean processes using observations and numerical models.

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### EDUCATION AND POSITIONS

PhD in Marine Sciences	University of Massachusetts Dartmouth	2019-present
B.Tech (Hons) in Mechanical Engineering	Indian Institute of Technology Bhubaneswar	2015-19
Summer Research Fellow	Indian National Centre for Ocean Information Services	2018

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### PEER REVIEWED PUBLICATIONS

#### Diurnal Warm Layers in Bay of Bengal during Monsoons 2019

S. Kerhalkar, A. Tandon, J.T. Farrar, T. Schlosser, A.J. Lucas, V. Hormann, L. Centurioni, L. St Laurent (in-prep for JGR-Oceans)

#### Using drifter observations to unearth the mysteries of monsoons in the Bay of Bengal

S. Kerhalkar, A. Tandon, V. Hormann, L. Centurioni, (IEEE-Oceans 2022)

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### THESES AND OTHER PUBLICATIONS

#### Applications of Computational Aero-Acoustics in understanding acoustic properties of oceans

Honours Thesis

July 2018-May 2019

#### Studying the Vertical Ocean Mixing in Bay of Bengal and Arabian Sea using the KPP Boundary Layer scheme

Summer Fellow Report: S. Kerhalkar, P.A. Francis

May-July 2018

<http://reports.ias.ac.in/report/12000/studying-the-oceanic-vertical-mixing-using-the-kpp-boundary-layer-scheme>.

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### PRESENTATIONS

Gordon Research Seminar/Conference on Ocean Mixing	Poster	Jun 2022
IMS Symposium, School for Marine Science and Tech., UMass Dartmouth	Poster	Mar 2022
Ocean Sciences Meeting, Hawaii (virtual)	Oral	Feb 2022
MTS-IEEE OCEANS 2022, Chennai (virtual)	Oral	Feb 2022
Seminar at Geophysical Flows Lab, IIT Madras	Oral	Oct 2021
MISO-BoB All-PI meeting (online)	Oral	Oct 2021
PhD Thesis proposal defense	Oral	Aug 2021
IMS Symposium, School for Marine Science and Tech., UMass Dartmouth	Poster	Mar 2021
Mechanical Engineering Seminar, UMass Dartmouth (virtual)	Oral	Feb 2021
MISO-BoB All-PI meeting (online)	Oral	Dec 2020
Ocean Sciences Meeting, San Diego	Poster	Feb 2020
National Oceanography Workshop, INCOIS, Hyderabad	Poster	Nov 2018

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### FIELD EXPERIENCE

#### Eastern Tropical North Pacific (Chief Scientist: Mark Altabet)

Dec 2020-Jan 2021

3-week long cruise on R/V Sally Ride to study OMZs. Collecting water samples, deploying CTD casts.

Also processed the data from CTD (using SeaBird) and shore support using remote sensing.

**Buzzards Bay (Chief Scientist: Miles Sundermeyer, Geoffrey Cowles)****Oct 2019**

Training cruise to collect water samples and deploy CTD casts.

**Bay of Bengal (Chief Scientist: Emily Shroyer)****Jul-Aug 2019**

4-week long cruise on R/V Sally Ride. Fast-CTD Deployment, Watch and Recovery Team

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### FELLOWSHIPS

- Recipient of Distinguished Doctoral Fellowship through Provost's office at University of Massachusetts Dartmouth for the AY 2019-20 and 2021-24.
- Recipient of the prestigious Indian Academy of Sciences' Summer Research Fellowship to work at INCOIS during the summer of 2018.

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### SKILLS

- Application Software: MATLAB, NOAA Ferret, GRADS, SolidWorks, Ansys (Beginner), Inkscape, SeaBird Processing
- Programming Languages: Python, Fortran
- Languages: English (fluent), Hindi (Native), Marathi (Native)

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### EDUCATIONAL ACTIVITIES

- Students Mentored: Ersen's Joseph (BS-MS student in Tandon Labs, advised by Amit Tandon and J Thomas Farrar) since January 2021 ; Nicholas Munroe (BS student in Tandon Labs, advised by Amit Tandon) since May 2022.
- Membership: American Geophysical Union, The Oceanography Society, Society for Industrial and Applied Mathematics

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### EXTRA-CURRICULUM ACTIVITIES

#### Positions of Responsibility:

- Student Representative, School for Marine Science and Tech Graduate Student Association at UMass Dartmouth since August 2020. Helping existing and new students with information about academics and other topics.
- Graduate Student Advisor, Indian Students' Association at UMass Dartmouth from April to October 2021.
- Student Placement Co-ordinator, Mechanical Engineering, at Career Development Cell, IIT Bhubaneswar from April 2018 onwards. Co-ordinated campus hiring.

#### Volunteer Activities:

- Organizing the IMS Symposium at School for Marine Science and Tech., UMass Dartmouth during March 2022.
- Organized the IMS Virtual Symposium at School for Marine Science and Tech., UMass Dartmouth during March 2021.
- Webmaster of Graduate Student Senate at UMass Dartmouth from January 2021 to January 2022.
- Webmaster of Tandon Laboratory at UMass Dartmouth since May 2020.