

Jesse Cusack

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Education

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| 2013 – 2018 | Ph.D. Ocean and Earth Science, University of Southampton , UK
Thesis: Mechanisms of Eddy Dissipation in the Southern Ocean |
| 2012 – 2013 | MSc Atmosphere, Oceans and Climate, University of Reading , UK
Award: Distinction |
| 2008 – 2012 | MPhys Physics, University of Manchester , UK
Award: First Class Honours |

Research Experience

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| 2018 – Ongoing | Postdoctoral researcher at Scripps Institution of Oceanography, University of California San Diego, USA |
| 2013 – 2018 | Postgraduate researcher at the National Oceanography Centre Southampton, University of Southampton, UK |
| 2015 | Exchange student researcher at Woods Hole Oceanographic Institute, USA |
| 2011 | Undergraduate summer researcher at Imperial College, London, UK |
| 2010 | Undergraduate summer researcher at the University of Manchester, UK |

Teaching Experience

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| 2014 | Teaching Assistant, University of Southampton <ul style="list-style-type: none">• Introduction to physical oceanography• Ocean observing measurements and data• Computational data analysis for geophysicists and ocean scientists |
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Peer Reviewed Publications

- **Cusack, J. M.**, Brearley, J. A., Naveira Garabato, A. C., Smeed, D. A., & Polzin, K. L. Observed eddy-internal wave interactions in the Southern Ocean. *Journal of Physical Oceanography*. *Submitted*.
- Garton, J. B., Mickett, J. B., Zhao, Z., Alford, M. H., Voet, G., **Cusack, J. M.**, Carter, G., Pearson-potts, K. A., Pratt, L. J., Tan, S., Klymak, J. M. (2019) Flow-topography interactions in the Samoan Passage. *Oceanography*. 32(4), 184–193.

- Carter, G. S., Voet, G., Alford, M. H., Girton, J. B., Mickett, J. B., Klymak, J. M., Pratt, L. J., Pearson-Potts K. A., **Cusack, J. M.** & Tan, S. (2019) A spatial geography of abyssal turbulent mixing in the Samoan Passage. *Oceanography*, 32(4), 194–203.
- **Cusack, J. M.**, Voet, G., Alford, M. H., Girton, J. B., Carter, G. S., Pratt, L. J., Pearson-Potts K. A. & Tan, S. (2019) Persistent Turbulence in the Samoan Passage. *Journal of Physical Oceanography*, 49(12), 3179–3197.
- **Cusack, J. M.**, Naveira Garabato, A. C., Smeed, D. A., & Girton, J. B. (2017). Observation of a Large Lee Wave in the Drake Passage. *Journal of Physical Oceanography*, 47(4), 793–810.
- Göncü, F., Willshaw, S., Shim, J., **Cusack, J.**, Luding, S., Mullin, T., & Bertoldi, K. (2011). Deformation induced pattern transformation in a soft granular crystal. *Soft Matter*, 7(6), 2321.

Research Cruises

2019	SR1914. <i>R/V Sally Ride</i> . Western tropical pacific. 2 weeks. <i>Operations: CTD, moorings, turbulence profiler</i>
2019	AR35-2. <i>R/V Neil Armstrong</i> . Iceland Basin. 2 weeks. <i>Operations: CTD, moorings</i>
2014	JR299. <i>RSS James Clark Ross</i> . Scotia Sea and Weddell Sea. 7 weeks. <i>Operations: CTD, water sampling</i>

Training courses and workshops

2015	Arctic fieldwork training short course, Cambridge, UK and Svalbard, Norway
2015	Fluid dynamics of Sustainability and the Environment Summer School, Paris France
2014	Oceans in Weather and Climate workshop, Met Office, Exeter, UK

Oral presentations

2019	IUGG General Assembly, Montreal, Canada <i>Title: Persistence and Variability of Turbulence in the Samoan Passage</i>
2018	Physical Oceanography Doctoral Symposium, Kailua-Kona, Hawaii, USA <i>Title: Mechanisms of Eddy Dissipation in the Southern Ocean</i>
2018 (invited)	CASPO Seminar, Scripps Institution of Oceanography, La Jolla, USA <i>Title: Observation of a Large Lee Wave in the Southern Ocean</i>
2018	Ocean Sciences Meeting, Portland, Oregon, USA <i>Title: Observed eddy - internal wave interaction in the Southern Ocean</i>
2018 (invited)	University of Oxford, Oxford, UK <i>Title: Observation of large lee wave in the Drake Passage</i>
2017	IAPSO-IAMAS-IGA Joint Assembly, Cape Town, South Africa <i>Title: Eddy dissipation by interaction with internal waves in the Drake Passage</i>
2016	Challenger Society Conference, Liverpool, UK

2015 *Title: Observations of an energetic lee wave in the Drake Passage*
IUGG General Assembly, Prague, Czech Republic
Title: Observations of a large lee wave in the Drake Passage

Poster presentations

2018 Gordon Conference on Ocean Mixing, New Hampshire, USA
Title: Observed eddy – internal wave interaction in the Southern Ocean

2016 Challenger Society Conference, Liverpool, UK
Title: Observations of spice filaments in the Southern Ocean

2016 Ocean Sciences Meeting, New Orleans, Louisiana, USA
Title: Measurements of a lee wave in the Southern Ocean: energy and momentum fluxes and mixing

2014 Challenger Society Conference, Plymouth, UK
Title: Observations of a large lee wave in the Drake Passage

Community service

2019 - Ongoing Member of the International Association for the Physical Sciences of the Oceans (IAPSO) Early Career Scientists committee
Responsibilities: Website design, quarterly meetings

Awards

2013 Water conservation bursary, University of Reading

References

Dr. Gunnar Voet Email: gvoet@ucsd.edu
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Prof. Matthew Alford Email: malford@ucsd.edu
Address: MPL, Scripps Institution of Oceanography, UC San Diego, 9500 Gilman Drive, #0213, La Jolla CA, 92093-0213, USA

Prof. Alberto Naveira Garabato Email: acng@noc.soton.ac.uk
Address: Ocean and Earth Science, National Oceanography Centre, Southampton, University of Southampton Waterfront Campus, European Way, Southampton, SO14 3ZH, United Kingdom