

Luwei Yang

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Education

- 2015–2019 Ph.D. in Quantitative Marine Science, University of Tasmania, Hobart, Australia.
2011–2015 B.Sc. in Marine Science, Ocean University of China, Qingdao, China.

Professional Experience

- 2023–present Postdoctoral Research Fellow, Research School of Earth Sciences, Australian National University, Canberra, ACT, Australia.
2020–2023 Postdoctoral researcher, Department of Atmospheric & Oceanic Sciences, UCLA, Los Angeles, California, United States.

Publications

- [5] **Yang, L.**, R. Barkan, K. Srinivasan, J.C. McWilliams, C.J. Shakespeare, and A.H. Gibson: Oceanic eddies induce a rapid formation of an internal wave continuum, *Communications Earth & Environment* **4**, 484, doi: [10.1038/s43247-023-01137-1](https://doi.org/10.1038/s43247-023-01137-1)
- [4] **Yang, L.**, M. Nikurashin, A.M. Hogg, and B.M. Sloyan, 2023: Lee waves break eddy saturation of the Antarctic Circumpolar Current. *Geophysical Research Letters*, **50**, doi: [10.1029/2023GL103866](https://doi.org/10.1029/2023GL103866).
- [3] Barkan R., K. Srinivasan, **L. Yang**, J.C. McWilliams, J. Gula, and C. Vic, 2021: Oceanic mesoscale eddy depletion catalyzed by internal waves. *Geophysical Research Letters*, **48**, doi: [10.1029/2021GL094376](https://doi.org/10.1029/2021GL094376).
- [2] **Yang, L.**, M. Nikurashin, A.M. Hogg, and B.M. Sloyan, 2021: The impact of lee waves on the Southern Ocean circulation. *Journal of Physical Oceanography*, **51**, 2933-2950, doi: [10.1175/JPO-D-20-0263.1](https://doi.org/10.1175/JPO-D-20-0263.1).
- [1] **Yang, L.**, M. Nikurashin, A.M. Hogg, and B.M. Sloyan, 2018: Energy Loss from Transient Eddies due to Lee Wave Generation in the Southern Ocean. *Journal of Physical Oceanography*, **48**, 2867–2885, doi: [10.1175/JPO-D-18-0077.1](https://doi.org/10.1175/JPO-D-18-0077.1).

Presentations

Invited talks

- [4] **Yang, L.** Eddy-wave interactions in the ocean. *Fudan-Guanghua International Forum for Young Scholars, Subforum of Symposium on Frontiers in Atmospheric and Oceanic Sciences, Fudan University*, Shanghai, China, 18 February 2023.
- [3] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The impact of lee waves on the Southern Ocean circulation and its response to changes in wind stress. *OCES Departmental Seminar, The Hong Kong University of Science and Technology, Zoom*, 30 September 2022.

- [2] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The impact of lee waves on the Southern Ocean circulation and its response to changes in wind stress. *Physical Oceanography Dissertations Symposium (PODS) XI*, Lihue, Kaua'i, Hawaii, United States, 17-21 October 2021.
- [1] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The impact of lee waves on the Southern Ocean circulation and its response to changes in wind stress. *Polar Oceans seminar, British Antarctic Survey*, Zoom, 4 November 2020.

Selected Oral Presentations

- [10] **Yang, L.**, R. Barkan, K. Srinivasan, J. C. McWilliams, C. J. Shakespeare, A. H. Gibson. Regulation of internal wave energy and its dissipation by eddies. *MEL Seminar, State Key Laboratory of Marine Environmental Science (Xiamen University)*, 22 February 2023.
- [9] **Yang, L.**, R. Barkan, K. Srinivasan, and J. C. McWilliams. On the propagation of wind-generated near-inertial waves: the importance of submesoscale currents. *Ocean Sciences Meeting 2022, PS11, The dynamics of interacting internal waves and (sub)mesoscale flows*, Virtual, 28 February - 4 March 2022.
- [8] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The impact of lee waves on the response of the Southern Ocean circulation to changes in wind stress. *Second California Geophysical Fluid Dynamics (CalGFD) Meeting*, Zoom, 20-21 August 2020.
- [7] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. Impacts of Lee Waves on the Southern Ocean Circulation and its Sensitivity to Wind Stress. *22nd Conference on Atmospheric and Oceanic Fluid Dynamics (AOFD), Idealized Model Approaches to the Atmosphere and Ocean Circulation 7.2*, Portland, Maine, United States, 24-28 June 2019.
- [6] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Impacts of Bottom Drag on the Sensitivity of the Southern Ocean Circulation to the Changing Wind. *2018 Consortium for Ocean Sea Ice Modelling in Australia (COSIMA) workshop*, Canberra, Australia, 7-8 May 2018.
- [5] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Role of Lee Waves for Dissipation of Transient Eddies in the Southern Ocean. *2018 Ocean Sciences Meeting*, PO12A-04, Portland, Oregon, United States, 11-16 February 2018.
- [4] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Impacts of Bottom Drag on the Sensitivity of the Southern Ocean Circulation to the Changing Wind. *Joint AMOS National Conference and the International Conference on Southern Hemisphere Meteorology and Oceanography (AMOS-ICSHMO 2018)*, Sydney, Australia, 5-9 February 2018.
- [3] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Role of Lee Waves for Dissipation of Transient Eddies in the Southern Ocean. *Australian Research Council's Centre of Excellence for Climate System Science (ARCCSS) 2017 Workshop*, Canberra, Australia, 30 October - 2 November 2017.
- [2] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Role of Lee Waves for Dissipation of Transient Eddies in the Southern Ocean. *21st Conference on Atmospheric and Oceanic Fluid Dynamics (AOFD) and the 19th Conference on Middle Atmosphere*, Mesoscale Ocean Dynamics 13.2, Portland, Oregon, United States, 26-30 June 2017.
- [1] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. The Role of Lee Waves for Dissipation of Transient Eddies in the Southern Ocean. *AMOS/MSNZ Conference & ANZ Climate Forum 2017*, Canberra, Australia, 7-10 February 2017.

Selected Poster Presentations

- [2] **Yang, L.**, R. Barkan, K. Srinivasan, and J. C. McWilliams. The energetics of wind-generated near-inertial waves. *23rd Conference on Atmospheric and Oceanic Fluid Dynamics (AOFD)*, Breckenridge, Colorado, United States, 13-17 June 2022.
- [1] **Yang, L.**, M. Nikurashin, A. M. Hogg, and B. M. Sloyan. Impacts of Lee Waves on the Southern Ocean Circulation and its Sensitivity to Wind Stress. *Ocean Sciences Meeting 2020*, PS14A-2817, San Diego, California, United States, 16-21 February 2020.

Selected Honours and Awards

- Travel grant, Physical Oceanography Dissertations Symposium (PODS) XI, Lihue, Kaua'i, Hawaii, United States, 2021.
- Bursary (€1000), 2017 Summer School on the Fluid Dynamics of Sustainability and the Environment (FDSE), Ecole Polytechnique, Palaiseau, France, 2017.
- Student Oral Presentation Honourable Mention, AMOS/MSNZ Conference & ANZ Climate Forum, Canberra, Australia, 2017.

Teaching Experience

- Marking: Dynamical Oceanography (KSM310), University of Tasmania. 2017-2019. Coordinators: Dr. Maxim Nikurashin, Prof. Neil Holbrook, Prof. Nathan Bindoff.
- Marking: Advanced Oceanography (KSA306), University of Tasmania. 2016. Coordinator: Dr. Maxim Nikurashin
- Demonstrating and marking: Our Changing Climate (KGA320), University of Tasmania. 2016. Coordinator: Prof. Neil Holbrook

Professional Services

- *Reviewer*, Journal of Physical Oceanography, Journal of Geophysical Research Oceans, Journal of Fluid Mechanics, Journal of Advances in Modeling Earth Systems, Geophysical Research Letters.

Last updated: December 16, 2023