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Education:

Griffith University, QLD, Australia; B.Sc. (First Class Honours), Environmental Science, 1985
University of Sydney, NSW, Australia; M.Sc., Physical Oceanography, 1988
University of Sydney, NSW, Australia; Ph.D., Physical Oceanography, 1992

Professional Appointments:

Research Oceanographer, Scripps Institution of Oceanography, 2007 – present
Educator (without salary), Scripps Institution of Oceanography, 2007 – present
Associate Research Oceanographer, Scripps Institution of Oceanography, 2001 – 2007
Assistant Research Oceanographer, Scripps Institution of Oceanography, 1995 – 2001
JIMO Postdoctoral Fellow, Scripps Institution of Oceanography, 1993-1995.
NRC Postdoctoral Associate, NOAA-PMEL Seattle, 1992-1993.

Awards and Distinctions:

2022: Asia Oceania Geosciences Society (AOGS) Axford Lecture

2021: American Meteorological Society Fellow

2015: Post Rouge Fellowship, Scientific Board of the Midi-Pyrenees Observatory, LEGOS, Toulouse, France.

2015: United States Antarctic Service Medal

2013: Marie Tharp Visiting Fellowship, Lamont Doherty Earth Observatory, New York, NY

1992-1993: National Research Council (NRC) Postdoctoral Fellowship Award, Seattle, WA

1989-1992: Commonwealth Postgraduate Fellowship (Australia)

1987-1988: CSIRO Postgraduate Fellowship (Australia)

Memberships:

American Geophysical Union, 1990 - present.

The Oceanography Society, 2009 - present

American Meteorological Society, 1997 – 2000; 2017 - present.

Asia Oceania Geosciences Society, 2018 - present

Publications:

Students and postdocs are underlined

1. Zhao, Z., ***J. Sprintall***, Y. Du (2024). Large mixed layer salinity variation in the southern tropical Indian Ocean due to the blending of water masses. *Geophys. Res. Letters (submitted July 2024)*

2. Li, R., Y. Li, Y. Lyu, ***J. Sprintall***, F. Wang (2024). Role of the Indian Ocean dynamics in the Indonesian Throughflow variability and extremes. *Nature Communications Earth and Environment* (submitted July 2024).

3. Hu, S., X. Lu, ***J. Sprintall***, F. Wang (2024). Imminent rapid decline of the Indonesian Throughflow in response to increasing CO2 concentration. *Nature Communications* (submitted July 2024).

4. Chandler, M., N. V. Zilberman, ***J. Sprintall*** (2024). The deep western boundary current of the Southwest Pacific Basin: insights from Deep Argo. *J. Geophysical Research – Oceans.* (in press, August 2024)

5. Ayoub, N.K. María Paz Chidichimo, Xinyu Guo, Sung Yong Kim, Marjolaine Krug, Belén Martín Míguez, Tamaryn Morris, Moninya Roughan, ***J. Sprintall***, Kiyoshi Tanaka, Robert E. Todd, John Wilkin, Enrique Álvarez-Fanjul, Magdalena Andres, Anthony Bosse, Christopher A. Edwards, Jonathan Gula, Colette G. Kerry, Yasumasa Miyazawa, Paolo Oddo, Eitarou Oka, Katherine D. Zaba, (2024). Observing ocean boundary currents: lessons learned from six regions with mature observational and modeling systems. *Oceanography,* 10.57670/oceanog.2024.504

6. ***Sprintall, J.,*** A. Biastoch, L. Gruenburg, and H. Phillips (2024). Chapter 9. Ocean basin connections, in Ummenhofer, C.C., & Hood, R.R. (Eds.), *The Indian Ocean and its role in the global climate system,* Elsevier. doi:10.1016/B978-0-12-822698-8.00003-2.

7. Hood, R.R., Ummenhofer, C.C., Phillips, H. and ***Sprintall, J.*** (2024). Chapter 1: Introduction to the Indian Ocean, in Ummenhofer, C.C., & Hood, R.R. (Eds.), *The Indian Ocean and its role in the global climate system,* Elsevier. doi:10.1016/B978-0-12-822698-8.00015-9.

8. Singh, S., ***J. Sprintall***, A. Capotondi, and R. Rodrigues (2024), First international summer school on marine heatwaves. *BAMS*, https://doi.org/10.1175/BAMS-D-23-0288.1

9. ***Sprintall, J.***, M. Nagura, J. Hermes, M. K. Roxy, M. J. McPhaden, E. Pattabhi Rama Rao, S. Kumar Tummala, S. Thurston**,** J. Li, M. Belbeoch, and V. Turpin (2024). COVID Impacts Cause Critical Gaps in the Indian Ocean Observing System. *BAMS*, https://doi.org/10.1175/BAMS-D-22-0270.1

10. *Gutierrez-Villanueva, M.O., Chereskin, T.K. & ***Sprintall, J***. (2023). Compensating transport trends in the Drake Passage frontal regions yield no acceleration in net

transport. *Nature Communications* **14**, 7792 (2023). https://doi.org/10.1038/s41467-023-43499-2.*

*This paper is part of Nature Communications collection of the 25th most downloaded articles published in 2023

11. Lu, X., S. Hu and ***J. Sprintall***, (2023). The role of precipitation and salinity effect in multi-decadal changes and long-term trends of the Indonesian Throughflow. *Journal of Climate*, https://doi.org/10.1175/JCLI-D-23-0248.1, 1317-1331

12. Lu, X., S. Hu, C. Guan, M. Li, ***J. Sprintall*** and F. Wang (2023). Quantifying the contribution of salinity effect to the seasonal variability of the Makassar Strait throughflow. *Geophysical Research Letters,* 50, e2023GL105991 10.1029/2023GL105991

13. Capotondi, A., S. McGregor, M. J. McPhaden, S. Cravatte, N. J. Holbrook, Y. Imada, S. C. Sanchez, ***J. Sprintall***, M. F. Stuecker, C. C. Ummenhofer, M. Zeller, R. Farneti, G. Graffino, S. Hu, K. B. Karnauskas, Y. Kosaka, F. Kucharski, M. Mayer, B. Qiu, A. Santoso, A. S. Taschetto, F. Wang, X. Zhang, R. M. Holmes, J-J Luo, N. Maher, C. Martinez-Villalobos, S. Stevenson, A. Sullivan, P. van Rensch, T. Xu (2023). Mechanisms of tropical Pacific decadal variability. *Nature Reviews Earth and Environment,* https://doi.org/10.1038/s43017-023-00486-x.

14. Hermes, J., R.M. Koll and ***J. Sprintall*** (2023). Addressing climate change in the Indian Ocean Region through knowledge, capabilities and networks. In *Indian Ocean Futures: Prospects for shared regional success,* S. Sagar, C. Lin, R. Rey (eds), UWA Public Policy Document, 10.26182/48ak-2y68

15. Gutierrez Brizuela, N., M. H. Alford, S.-P. Xie, ***J. Sprintall***, G. Voet, S. J. Warner, K. Hughes, and J. N. Moum (2023), Prolonged thermocline warming by near-inertial internal waves in the wake of tropical cyclones. PNAS, 120 (26) e2301664120, https://doi.org/10.1073/pnas.2301664120

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19. Parks, J., Bringas, F.; Hanstein, C.; Krummel, L.; Cowley, R.; ***Sprintall, J***.; Cheng, L.; Cirano, M.; Cruz, S.; Goes, M.; Kizu, S.; Reseghetti, F. (2022) XBT Operational Best Practices for Quality Assurance, *Frontiers in Marine Science*, 9, 10.3389/fmars.2022.991760

20. DeMott, C., A. Subramanian, S. Chen. K. Drushka, Y. Fuji, A. Sutton, ***J. Sprintall***, D. Zhang (2022). Focused observations for expanded comprehension: Advancing tropical Pacific coupled modeling and process understanding. *Bulletin of the American Meteorological Society*, 10.1175/BAMS-D-22-0041.1.

21. Anutaliya, A., U. Send, McClean**,** J.L., ***J. Sprintall,*** M. Lankhorst, C.M. Lee, L. Rainville, W.N.C. Priyadarshani, S.U.P. Jinadasa (2022). Seasonal and year-to-year variability of boundary currents and eddy salt flux along the Sri Lankan eastern and southern coasts observed by PIES and satellite measurements, *Journal of Physical Oceanography.* https://doi.org/10.1175/JPO-D-22-0030.1

22. Chandler, M., N. V. Zilberman and ***J. Sprintall*** (2022). Seasonal to decadal western boundary current variability from sustained ocean observations, *Geophysical Research Letters*, 49, e2022GL097834, https://doi.org/10.1029/2022GL097834

23. Katsura, S., ***J. Sprintall***, J.T. Farrar, D. Zhang and M.F. Cronin (2022). The barrier layer effect on the heat and freshwater balance from moored observations in the eastern Pacific fresh pool, *Journal of Physical Oceanography,* 10.1175/JPO-D-21-0243.1

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41. Zang, N., F. Wang, ***J. Sprintall*** (2020). The Intermediate Water in the Philippine Sea. *Journal of Oceanology and Limnology*, 10.1007/s00343-020-0035-4

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Middleton J., Montes I., Muglia M., Nagai T., Palevsky H. I., Palter J. B., Phillips H. E., Piola A., Plueddemann A. J., Qiu B., Rodrigues R. R., Roughan M., Rudnick D. L., Rykaczewski R. R., Saraceno M., Seim H., Gupta A. Sen, Shannon L., Sloyan B. M., Sutton A. J., Thompson L., Plas A. K. van der, Volkov D., Wilkin J., Zhang D., Zhang L., (2019). Global Perspectives on Observing Ocean Boundary Current Systems, *Frontiers in Marine Science,* 6:423, http://doi.org/10.3389/fmars.2019.00423

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Sulawesi Sea circulation forced by Indo-Pacific planetary waves, *Journal of Geophysical Research - Oceans*, DOI: 10.1029/2018JC014356

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Skyllingstad, J. Sprintall, B. Subrahmanyam, E. Terrill, R.E. Todd, C. Trott, H.N. Ulloa, Wang, H. (2017). Northern Arabian Sea Circulation Autonomous Research (NASCar): A research initiative based on autonomous sensors. *Oceanography, 30*(2), 74-87. doi: 10.5670/oceanog.2017.224

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Some Key Report Contributions:

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External Professional Activities:

- Member, UCAR Board of Trustees, 2024 - present
- President-Elect, AGU Ocean Sciences Section, 2023 - present
- Member, CLIVAR Indian Ocean Regional Panel, 2022 – present (Co-Chair, 2023-2024)
- Member (and Interim Chair 2023), GOOS Ocean Observations Physics and Climate Panel (OOPC) Boundary Currents and Shelf Sea Interactions Task Team, 2019 – present.
- Member, International Indian Ocean Experiment II, U.S. Planning Committee, 2020 - present
- Member, AGU EOS Section Panel Science Adviser, 2019 - 2022
- Deputy Co-Chair, North Pacific Ocean Circulation Experiment (NPOCE), 2019 – 2023
- Member, Tropical Pacific Decadal Variability Working Group, CLIVAR Pacific Regional Panel, 2021 – 2023
- Member, AGU Outstanding Student Presentation Awards (OSPA) Advisory Group, 2021
- Steering Committee Member, Tropical Pacific Observing Needs to Advance Process Understanding and Representations in Models, U.S. CLIVAR supported Workshop, May 2021
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- Ocean Sciences Representative, AGU Fall Meeting Planning Committee, 2019 - 2022
- Co-organizer, Gateways to the Ocean Workshop, SIO, February 2020.
- Editor, AGU Geophysical Research Letters, 2017 – 2021
- Member, Journal of Geophysical Research - Oceans Editor in Chief search committee, 2020
- Co-leader, Mentoring Physical Oceanography Women to Increase Retention, 2010 – 2013; 2015 – 2017; 2019 - 2021
- Member, IQuOD Science Steering Committee, 2018 – 2022
- Member, Rolling Deck to Repository (R2R) Advisory Committee, 2016 - present
- Co-Chair, Western Pacific Team, Tropical Pacific Observing System-2020, 2016 – 2021
- Member, Backbone Task Team, Tropical Pacific Observing System-2020, 2015 – 2021
- Co-Chair, SOOP XBT Science Team, 2011 – present
- Ocean Sciences Representative, AGU Fall Meeting Planning Committee, 2019
- Member, U.S. CLIVAR Process Study – Model Improvement (PSMI) Panel, 2016 – 2019
- Member, International CLIVAR Pacific Panel, 2016 – 2019
- Invited Senior Scientist, Patullo Conference, Sponsored by MPOWIR, 2011; 2013; 2015
- Member, Scientific Steering and Organizing Committee, 2nd International Ocean Research Conference, Barcelona, November 2014
- Physical Oceanography Representative, The Oceanography Society (TOS) Council, 2012 – 2014
- Co-Chair, CLIVAR Indonesian Throughflow Task Team, 2012 – 2014
- Co-Chair, Executive Committee of the US CLIVAR Science Steering Committee, 2012 – 2014
- Invited Speaker, Physical Oceanography Dissertation Symposium (PODS), Hawaii, 2012
- Member, Antarctic Research Vessels Oversight Committee, 2006-2010.
- Ongoing frequent reviewer for journals JGR-Oceans; Geophysical Research Letters; Biogeosciences; Nature; Journal of Physical Oceanography; Journal of Climate; Frontiers in Marine Science; Deep-sea Research; JGR-Atmosphere; JGR-Oceans; Oceanography; Nature Communications; Science Advances; Terrestrial, Atmospheric and Oceanic Sciences

- Ongoing frequent reviewer for NSF OCE and OPP proposals; Israel Science Foundation; NERC.
- Panelist for NASA Physical Oceanography (2013), Ocean Surface Topography (2004, 2016) and Salinity Science Teams (2010, 2018)
- Panelist for NOAA Climate Variability Program (2019)
- Panelist for National Science Foundation (2000, 2004, 2006)
- Reviewer of ship time proposals to Australian National Facilities including the R/V Franklin, R/V Southern Surveyor and R/V Investigator
- Reviewer of ship time proposal for French National Facility.
- Ongoing convener and session chair at Ocean Sciences (2012 – present); AGU Fall Meeting (2014 – present)

SIO/UCSD Service

- Member, SIO Editorial and Publications Committee, 2019 - present
- Member, SIO Heritage Committee, 2012 – present (Chair 2024)
- Member, Ritter Selection Committee, 2023.
- Chair, SIO Committee for Academic Personnel (CAP), 2022/23
- Member, SIO Space Allocation Task Force, 2022 (This committee was the recipient of the 2023 Inclusive Excellence Award Recipient from the UCSD Chancellor that recognizes contributions to diversity, equal opportunity and affirmative action at UCSD.)
- Member, SIO Committee for Academic Personnel (CAP), 2020 – 2023
- Chair, SIO Editorial and Publications Committee, 2020 - 2022
- Chair, SIO Marine Operations Committee, 2016 – 2018
- Member, SIO Marine Operations Committee, 2007 – 2010; 2014 – 2019
- Member, SIO Hydraulics Committee, 2014 – 2018
- Member, SIO Search Committee for Hydrology Faculty Position, 2019
- Member, SIO Educational Policy Committee, 2018-2019
- Member, Committee on Future Planning for the SIO Research Series, 2015
- Member, SIO Search Committee for Coastal Lectureship, 2013
- Member and Chair, Numerous Ad Hoc committees for CASPO, SIO, 1995 - present

Selective Sea-Time

- April – May 2024, EKAMSAT, R/V Thompson, hydrography, Bay of Bengal
- June – July 2023, EKAMSAT, *R/V Revelle* , hydrography, South-east Arabian Sea
- August 2018, PISTON, *R/V Thompson*, hydrography, tropical western Pacific Ocean
- October–November 2017, NASA SPURS-2 cruise, hydrography, *R/V Revelle*, tropical eastern Pacific Ocean
- August - September 2016, NASA SPURS-2 cruise, hydrography, *R/V Revelle*, tropical eastern Pacific Ocean
- April – May 2015, ChinSTRAP, *USAP L.M. Gould*, hydrography/AUVs, Drake Passage, Antarctica, Chief Scientist
- February 2014, SPICE, *R/V Thompson*, Moorings, Solomon Sea, Western Tropical Pacific, Chief Scientist

- July 2012, SPICE, *R/V L'Atalante*, Moorings, Solomon Sea, Western Tropical Pacific
- March 2009, PhilEx, *R/V Melville*, Moorings, Sulu Sea, Philippines
- December 2007, PhilEx, *R/V Melville*, Moorings, Sulu Sea, Philippines
- February 2007, WOCE I9-N, *R/V Revelle*, Hydrography, Fremantle – Phuket, Indian Ocean, Chief Scientist
- December 2006, INSTANT, *R/V Baruna Jaya* I, Moorings, Nusa Tengarra, Indonesia, Chief Scientist
- June 2005, INSTANT, *R/V Baruna Jaya* I, Moorings, Nusa Tengarra, Indonesia, Chief Scientist
- December 2003, INSTANT, *R/V Baruna Jaya IV*, Moorings, Nusa Tengarra, Indonesia, Chief Scientist
- August 2003, INSTANT, *R/V Southern Surveyor*, Moorings/pressure gauges/Hydrography, Timor Leste and Ashmore Reef
- August 2001, EPIC, *R/V Revelle*, Hydrography, Eastern tropical Pacific Ocean.
- November 1999, SPGA, *R/V Baruna Jaya VIII*, pressure gauges, Nusa Tengarra, Indonesia, Chief Scientist
- August 1998, SPGA, *R/V Baruna Jaya VIII*, pressure gauges, Nusa Tengarra, Indonesia, Chief Scientist
- August 1997, SPGA, *R/V Baruna Jaya IV*, pressure gauges, Nusa Tengarra, Indonesia, Chief Scientist

Mentors and Mentoring:

Masters Advisor:
Dr. Gary Meyers, CSIRO Marine and Atmospheric Research, Australia (deceased)
Graduate Advisor:
Prof. Matthias Tomczak, University of Sydney, Australia (deceased)
Post-doctoral Advisors:
Dr. Michael J. McPhaden (NOAA-PMEL, Seattle)
Prof. Dean Roemmich (SIO-UCSD, La Jolla)

SIO Graduate Students supervised:
Yueng D. Lenn (PhD, committee member, graduated 2006, now at U. Bangor);
Andrew Thompson (PhD, committee member, graduated 2006, now at CalTech);
Kyla Drushka (PhD, co-advisor with S. Gille, graduated 2011, now at APL/UW);
Gordon Stephenson (PhD, co-advisor with S. Gille, graduated 2013, now at NRL);
Yvonne Firing (PhD, committee member, graduated 2013, now at IOC Southampton);
Geoffrey Gearheart (PhD, co-advisor with G. Kooyman, graduated 2014, now at U. QLD);
Riley Gammon (PhD, committee member, graduated 2015, now at USGS)
Andrew Delman (PhD, co-advisor with J. McClean and L. Talley, graduated 2015, now at JPL);
Marion Alberty (PhD, co-advisor with J. MacKinnon, graduated 2018, now at Princeton U.);
Mariela Brooks (PhD, committee member, graduated 2019, now at U. Alaska)
Arachaporn "Waen" Anutaliya (PhD, co-advisor with U. Send and J. McClean, graduated 2019, now at Burapha University, Thailand)

Manuel Guitierrez Villanueva (PhD, co-advisor with T. Chereskin, graduated)
Olavo Badaro-Marques (PhD, committee member, 2018 – 2021, graduated November 2021)
Noel Guitierrez-Brizuela (PhD, committee member, 2018 – present)
Mitchell Chandler (PhD, co-advisor with N. Zilberman, 2020 – present)
Ankitha Kannad (PhD, co-advisor with Jen MacKinnon, 2022 – present)

Honors Students supervised:
Mr. Matthew Sprague (UCSD Honors, committee member, Fiamma Straneo and Maria Vernet, 2021).

BS/MS Students Supervised:
Ms. Scarlett Hensmen (UCSD OAS student, co-advisor with Nathalie Zilberman, SIO-199 project, winter 2021 – present)

Undergraduate Students supervised:
Mr. Junnan "Boris" Yan (UCSD OAS student, co-advisor with Nathalie Zilberman, SIO-199 project, winter 2021 – present)
Mr. Aoming Yu (UCSD OAS student, advised Fiamma Straneo) Research Assistant, summer 2022
Mr. Clifford Hoang (UCSD BS student, Undergraduate Research Asst, co-advised with Kyla Drushka and Sarah Gille, Nov 2013 – June 2016)

External Graduate Students and Visiting Scholars Advised
PhD Candidate: Ms. Rui Li, visiting student, University of Chinese Academy of Sciences, Qingdao, China, 2024-present
PhD Candidate: Mr Zhangzhe Zhao, visiting student, South China Sea Institute of Oceanology. Chinese Academy of Sciences, Guangdong, China, 2023 – present.
PhD Candidate: Ms. Ajda Savarin, committee member (advisor: Shuyi Chen), U. Washington, 2018-2023
MSc Candidate: Ms. Dava Amrina, POGO-SCOR 2021 Visiting Fellowship, May-July 2022.
MSc Candidate: Ms. Socorro Rodrigo, co-advisor (with Claudia Wieners), Climate Physics, University of Utrecht, Netherlands, 2020-2022 (graduated 2022)
PhD Candidate: Dr. Salviente Makarim, committee member (advisor: Weidong Yu), Xiamin University, China, 2018 – 2021 (graduated 2021)
PhD Candidate: Dr. Giuliana Viglione, committee member (advisor: Andrew Thompson), CalTech, 2017 – 2019, (graduated 2019)
PhD Candidate: Dr. Cyril Germineaud, co-advised with A. Ganachaud and S. Cravatte, LEGOS, France, University of Toulouse, France, 2014 – 2016, (graduated 2016)
PhD Candidate: Dr. Xiaoyue Hu, visiting student, IOCAS, China, 2017, (graduated 2019)
MSc Candidate: Mr. Remi Ienny, visiting student, University Marseille, France, 2016
MSc Candidate: Ms. Yona Silvy, visiting student, ENSTA ParisTech University, France, 2016
MSc Candidate: Mr. Loris Canizares, visiting student, ENSTA, France, 2014.
MSc Candidate: Dr. Adéle Revelard, visiting student, L'Ocean, France, 2012 (graduated 2018)
BS Candidate: Ms. Natalia Ribeiro Santos, visiting student, CNPQ Brazilian Fellowship, Universidade Federal do Rio Grande 2012.

PhD Candidate: Dr. Jesus Peña Izquierdo, Institut de Ciències del Mar, ICM-CSIC, Barcelona, Spain, 2011 (graduated 2015).

External Reviewer for PhD thesis of Dr. Josue Martínez-Moreno, Australian National University (2021)
External reviewer for PhD thesis of Dr. Laura Gruenberg, LDEO, Columbia University (2020)
External reviewer for PhD thesis of Dr. Dwiyoga Nugroho, University of Toulouse, France (2017)
External reviewer for MSc thesis of Dr. Lydia Keppler, University of the South Pacific, Fiji (2017)

Postdocs supervised:
Shenfu Dong (2004-2007, with S. Gille, now at CIMAS, NOAA-AOML)
Alexa Griesel (2005-2009, with S. Gille and J. McClean, now at U. Hamburg)
ChuanLi Jiang (2008-2011, with S. Gille, now at NWR)
Kyla Drushka (2013-2014, with S. Gille, now at APL/UW)
Shijian Hu (2015-2016, now at IOCAS, China)
Nan Zang (2017-2018, now at IOCAS, China)
Shota Katsura (2019-2023)