

Malte F. Stuecker, PhD

Department of Oceanography
& International Pacific Research Center
University of Hawai'i at Mānoa
1680 East-West Road
Honolulu, HI 96822, USA

✉ stuecker@hawaii.edu
🌐 <http://www2.hawaii.edu/~stuecker/>
☎ (808) 956-9158
📠 (808) 956-9425

Education

PhD Meteorology, Department of Atmospheric Sciences, University of Hawai'i (UH) at Mānoa, 2015

Diplom Marine Environmental Sciences (German equivalent of combined BS/MS degree), Carl von Ossietzky University Oldenburg, 2009

Professional Appointments

Assistant Professor, Department of Oceanography & International Pacific Research Center (IPRC), UH Mānoa, 2020–Present

Assistant Project Leader (Research Professor), leading the "Tropical climate dynamics: past, present, future" group at the IBS Center for Climate Physics (ICCP), Pusan National University, 2018–2019

NOAA Climate & Global Change Postdoctoral Fellow, Department of Atmospheric Sciences, University of Washington, 2016–2018

Postdoctoral Researcher, Department of Atmospheric Sciences, UH Mānoa, 2015–2016

Honors & Awards

Kamide Lecture Award, Asia Oceania Geosciences Society (AOGS; Atmosphere Sciences section), 2020 – *Awarded annually in each AOGS section to one early career researcher for outstanding scientific contributions*

STS forum (Science and Technology in Society forum) Future Leaders Program fellow, Kyoto, Japan, 2018 – *Awarded annually to about 150 future global leaders from academia, industry, and public sectors*

European Geosciences Union (EGU) Outstanding Young Scientist Award of the "Climate: Past, Present & Future (CL)" Division, 2016 – *Awarded annually to one early career scientist for outstanding contributions in the field of climate science*

NOAA Climate & Global Change postdoctoral fellowship recipient (alumni class 26), 2016

AGU Editors' Citation for Excellence in Refereeing – Geophysical Research Letters, 2020

European Geosciences Union (EGU) Outstanding Student Poster and PICO (OSPP) Award of the "Nonlinear Processes in Geosciences (NP)" Division, 2016

Best Student Presentation, ENSO workshop at the University of New South Wales, 2015

Diplom (German equivalent of combined BS/MS degree): Excellent with Distinction, 2009 – *highest grade awarded by the University*

Grants and Fellowships

At UH (since 2020):

Total grant amount (since 2020): \$1,569,420

Total grant amount to UH (since 2020): \$1,559,420

Total budget I am responsible for as either PI or co-I (since 2020): **\$301,875**

Thomas Jefferson Fund (FACE Foundation); 09/2021-08/2023; "MULTI Scale Interactions in the Pacific (MUSIC) - Development of Tropical Instability Waves parameterizations for improving El Nino simulations in Earth System Models"; Joint US-French project; **PI US institution**, total budget: \$20,000; my budget: \$10,000

NOAA grant NA21OAR0170191; 07/2021-06/2024; "Assessing Current and Future Ocean Acidification and Climate Vulnerabilities Along the Hawaiian Archipelago"; **co-I**; total budget: \$1,039,556; my budget: \$43,613

NOAA grant NA20OAR4310445; 09/2020-08/2023; "Future Climate Impacts on the Pelagic and Coastal Fisheries of Hawai'i"; **co-I**; total budget: \$509,864; my budget: \$248,262

Prior to UH (before 2020):

2018 – 2019: Research Group funding via ICCP (PI salary plus funding for 3 supervised postdocs)

2016 – 2018: NOAA Climate & Global Change fellowship

2015: Bjerknes visiting fellowship, Bjerknes Centre, University of Bergen

2006 – 2007: Floyd and Lili Biava foundation fellowship, Carl von Ossietzky University Oldenburg

Publications

formally advised students, formally co-advised students, and formally advised postdocs are solid underlined

†: I am corresponding author (only marked when I am *not* also first author at the same time)

††: I am a coordinating lead author on review paper

informally mentored student first authors are dashed underlined

Number of published papers, book chapters, and other publications (total: 69)

Science: 1, Nature: 1, Nature Geoscience: 1, Nature Climate Change: 6, Nature Communications: 2; PNAS: 1; Science Advances: 2; Communications Earth & Environment: 2; Nature Reviews Earth & Environment: 1; Earth's Future: 1; BAMS: 1; Geophysical Research Letters: 16; Journal of Climate: 14; Climate Dynamics: 7; Scientific Reports: 3; Earth System Dynamics: 1; Journal of Advances in Modeling Earth Systems: 1; PLoS ONE: 1; Journal of the Meteorological Society of Japan: 1; Weather and Forecasting: 1; Peer-reviewed book chapters: 3; Peer-reviewed report chapters: 1; Elsevier Reference Module in Earth Systems and Environmental Sciences: 1

Number of publications either as first author, corresponding author(†), coordinating lead author (††), or with formally advised/co-advised student/postdoc as first author: 22

Number of publications with informally mentored student as first author: 13

Goole Scholar Profile: <https://scholar.google.com/citations?user=SIz5A80AAAAJ&hl=en>

Peer-reviewed journal articles

62. Wengel, C., S.-S. Lee, **M. F. Stuecker**, A. Timmermann, J.-E. Chu, and F. Schloesser (2021), Future high-resolution El Niño/Southern Oscillation dynamics, *Nature Climate Change*, doi:10.1038/s41558-021-01132-4
61. Hauri, C., R. Pagès, A. M. P. McDonnell, **M. F. Stuecker**, S. L. Danielson, K. Hedstrom, B. Irving, C. Schultz, and S. C. Doney (2021), Modulation of ocean acidification by decadal climate variability in the Gulf of Alaska, *Communications Earth & Environment*, in press
60. Liu, C., W. Zhang, F. Jiang, **M. F. Stuecker**, and Z. Huang (2021), Record-low WNP tropical cyclone activity in early summer 2020 due to Indian Ocean warming and Madden-Julian Oscillation activity, *Geophys. Res. Lett.*, doi:10.1029/2021GL094578, in press
59. Cai, W., A. Santoso, M. Collins, B. Dewitte, C. Karamperidou, J.-S. Kug, M. Lengaigne, M. J. McPhaden, **M. F. Stuecker**, A. S. Taschetto, A. Timmermann, L. Wu, S.-W. Yeh, G. Wang, B. Ng, F. Jia, Y. Yang, J. Ying, X. Zheng, T. Bayr, J. R. Brown, A. Capotondi, K. C. Cobb, B. Gan, T. Geng, Y.-G. Ham, F.-F. Jin, H.-S. Jo, X. Li, X. Lin, S. McGregor, J.-H. Park, K. Stein, K. Yang, L. Zhang, and W. Zhong (2021), Changing ENSO in a warming climate, *Nature Reviews Earth & Environment*, doi:10.1038/s43017-021-00199-z, in press
58. Kim, I.-W., **M. F. Stuecker**, A. Timmermann, E. Zeller, J.-S. Kug, S.-W. Park, and J.-S. Kim (2021), Tropical Indo-Pacific SST influences on vegetation variability in eastern Africa, *Scientific Reports*, 11, doi:10.1038/s41598-021-89824-x
57. Shin, Y., S. M. Kang, K. Takahashi, **M. F. Stuecker**, Y.-T. Hwang, and D. Kim (2021), Evolution of the Tropical Response to Periodic Extratropical Thermal Forcing, *J. Climate*, 34, 6335-6353, doi:10.1175/JCLI-D-20-0493.1
56. Zhang, W., F. Jiang, **M. F. Stuecker**, F.-F. Jin, and A. Timmermann (2021), Spurious North Tropical Atlantic precursors to El Niño, *Nature Communications*, 12, doi:10.1038/s41467-021-23411-6
55. Zhang, Y., S. Yu, D. J. Amaya, Y. Kosaka, S. M. Larson, X. Wang, J.-C. Yang, **M. F. Stuecker**, S.-P. Xie, A. J. Miller, and X. Lin (2021), Pacific Meridional Modes without Equatorial Pacific Influence, *J. Climate*, 34, 5285-5301, doi:10.1175/JCLI-D-20-0573.1
54. Zhang, W., Z. Huang, F. Jiang, **M. F. Stuecker**, G. Chen, and F.-F. Jin (2021), Exceptionally persistent Madden-Julian Oscillation activity contributes to the extreme 2020 East Asian summer monsoon rainfall, *Geophys. Res. Lett.*, doi:10.1029/2020GL091588
53. Chung, E.-S., K.-J. Ha, A. Timmermann, **M. F. Stuecker**, T. Bodai, and S.-K. Lee (2021), Cold-Season Arctic Amplification Driven by Arctic Ocean-Mediated Seasonal Energy Transfer, *Earth's Future*, 9, e2020EF001898, doi:10.1029/2020EF001898
52. Yun, K.-S., A. Timmermann, and **M. F. Stuecker** (2021), Synchronized spatial shifts of Hadley and Walker circulations, *Earth System Dynamics*, 12, 121-132, doi:10.5194/esd-12-121-2021
51. Zhang, W., W. Mao, F. Jiang, **M. F. Stuecker**, F.-F. Jin, and L. Qi (2021), Tropical Indo-Pacific compounding thermal conditions drive the 2019 Australian extreme drought, *Geophys. Res. Lett.*, 48, e2020GL090323, doi:10.1029/2020GL090323
50. Yun, K.-S., J.-Y. Lee, A. Timmermann, K. Stein, **M. F. Stuecker**, J. C. Fyfe, and E.-S. Chung (2021), Increasing ENSO rainfall variability due to changes in future tropical temperature-rainfall relationship, *Communications Earth & Environment*, 2, doi:10.1038/s43247-021-00108-8
49. Chu, J.-E., S.-S. Lee, A. Timmermann, C. Wengel, **M. F. Stuecker**, and R. Yamaguchi (2020), Reduced tropical cyclone densities and ocean effects due to anthropogenic greenhouse warming, *Science Advances*, 6, eabd5109, doi:10.1126/sciadv.abd5109
48. Kang, S. M., S.-P. Xie, Y. Shin, H. Kim, Y.-T. Hwang, **M. F. Stuecker**, B. Xiang, and M. Hawcroft (2020), Walker circulation response to extratropical radiative forcing, *Science Advances*, 6, eabd3021, doi:10.1126/sciadv.abd3021
47. Hayashi, M., F.-F. Jin, and **M. F. Stuecker** (2020), Dynamics for El Niño-La Niña asymmetry constrain equatorial-Pacific warming pattern, *Nature Communications*, 11, doi:10.1038/s41467-020-17983-y

46. Li, Z., W. Zhang, F.-F. Jin, **M. F. Stuecker**, C. Sun, A. F. Z. Levine, H. Xu, and C. Liu (2020), A Robust Relationship between Multidecadal Global Warming Rate Variations and the Atlantic Multidecadal Variability, *Clim Dyn*, doi:10.1007/s00382-020-05362-8
45. Park, S.-W., J.-S. Kim, J.-S. Kug, **M. F. Stuecker**, I.-W. Kim, and M. Williams (2020), Two aspects of decadal ENSO variability modulating the long-term global carbon cycle, *Geophys. Res. Lett.*, 47, doi:10.1029/2019GL086390
44. Jiang, F., W. Zhang, **M. F. Stuecker**, and F.-F. Jin (2020): Decadal change of Combination Mode spatiotemporal characteristics due to an ENSO regime shift, *J. Climate*, 33, 5239-5251, doi:10.1175/JCLI-D-19-0822.1
43. Geng, X., W. Zhang, F.-F. Jin, **M. F. Stuecker**, and A. F. Z. Levine (2020): Modulation of the relationship between ENSO and its combination mode by the Atlantic Multidecadal Oscillation, *J. Climate*, 33, 4679-4695, doi:10.1175/JCLI-D-19-0740.1
42. Loeb, N. G., H. Wang, R. Allan, T. Andrews, K. Armour, J. N. S. Cole, J.-L. Dufresne, P. Forster, A. Gettelman, H. Guo, T. Mauritsen, Y. Ming, D. Paynter, C. Proistosescu, **M. F. Stuecker**, U. Willén, and K. Wyser (2020): New Generation of Climate Models Track Recent Unprecedented Changes in Earth's Radiation Budget Observed by CERES, *Geophys. Res. Lett.*, 47, e2019GL086705, doi:10.1029/2019GL086705
41. Zhao, S., †**M. F. Stuecker**, F.-F. Jin, J. Feng, H.-L. Ren, W. Zhang, and J. Li (2020): Improved Predictability of the Indian Ocean Dipole using a Stochastic-Dynamical Model compared to the North American Multi-Model Ensemble Forecast, *Weather and Forecasting*, 35, 379-399
40. **Stuecker, M. F.**, A. Timmermann, F.-F. Jin, C. Proistosescu, S. M. Kang, D. Kim, K.-S. Yun, E.-S. Chung, J.-E. Chu, C. M. Bitz, K. C. Armour, and M. Hayashi (2020): Strong remote control of future equatorial warming by off-equatorial forcing, *Nature Climate Change*, 10, 124-129, doi:10.1038/s41558-019-0667-6
39. Liu, C., W. Zhang, **M. F. Stuecker**, and F.-F. Jin (2019): Pacific meridional mode-western North Pacific tropical cyclone linkage explained by tropical Pacific quasi-decadal variability, *Geophys. Res. Lett.*, 46, 13346-13354, doi:10.1029/2019GL085340
38. Jiang, F., W. Zhang, X. Geng, **M. F. Stuecker**, and C. Liu (2019): Impacts of Central Pacific El Niño on Southern China spring precipitation controlled by its longitudinal position, *J. Climate*, 32, 7823-7836, doi:10.1175/JCLI-D-19-0266.1
37. Zhao, S., F.-F. Jin, and †**M. F. Stuecker** (2019): Improved predictability of the Indian Ocean Dipole using seasonally modulated ENSO forcing forecasts, *Geophys. Res. Lett.*, 46, 9980-9990, doi:10.1029/2019GL084196
36. Zhang, W., S. Li, F.-F. Jin, R. Xie, C. Liu, **M. F. Stuecker**, and A. Xue (2019): ENSO regime changes responsible for decadal phase relationship variations between ENSO sea surface temperature and warm water volume, *Geophys. Res. Lett.*, 46, 7546-7553, doi:10.1029/2019GL082943
35. Li, Z., W. Zhang, **M. F. Stuecker**, H. Xu, F.-F. Jin, and C. Liu (2019): Different effects of two ENSO types on Arctic surface temperature in boreal winter, *J. Climate*, 32, 4943-4961, doi:10.1175/JCLI-D-18-0761.1
34. Tian, B., H.-L. Ren, F.-F. Jin, and **M. F. Stuecker** (2019): Diagnosing the representation and causes of the ENSO Persistence Barrier in CMIP5 simulations, *Clim Dyn*, 53, 2147-2160, doi:10.1007/s00382-019-04810-4
33. Liu, C., W. Zhang, X. Geng, **M. F. Stuecker**, and F.-F. Jin (2019): Modulation of Tropical Cyclones in the Southeastern part of the Western North Pacific by tropical Pacific decadal variability, *Clim Dyn*, 53, 4475-4488, doi:10.1007/s00382-019-04799-w
32. Cai, W., L. Wu, M. Lengaigne, T. Li, S. McGregor, J.-S. Kug, J.-Y. Yu, ††**M. F. Stuecker**, A. Santoso, X. Li, Y.-G. Ham, Y. Chikamoto, B. Ng, M. J. McPhaden, Y. Du, D. Dommenges, F. Jia, J. B. Kajtar, N. Keenlyside, X. Lin, J.-J. Luo, M. Martín-Rey, Y. Ruprich-Robert, G. Wang, S.-P. Xie, Y. Yang, S. M. Kang, J.-Y. Choi, B. Gan, G.-I. Kim, C.-E. Kim, S. Kim, J.-H. Kim, and P. Chang (2019): Pantropical climate interactions, *Science*, 363, eaav4236, doi:10.1126/science.aav4236

31. **Stuecker, M. F.**, C. M. Bitz, K. C. Armour, C. Proistosescu, S. M. Kang, S.-P. Xie, D. Kim, S. McGregor, W. Zhang, S. Zhao, W. Cai, Y. Dong, and F.-F. Jin (2018): Polar amplification dominated by local forcing and feedbacks, *Nature Climate Change*, *8*, 1076–1081, doi:10.1038/s41558-018-0339-y
30. Timmermann, A., S.-I. An, J.-S. Kug, F.-F. Jin, W. Cai, A. Capotondi, K. Cobb, M. Lengaigne, M. J. McPhaden, **M. F. Stuecker**, K. Stein, A. Wittenberg, K.-S. Yun, T. Bayr, H.-C. Chen, Y. Chikamoto, B. Dewitte, D. Dommenges, P. Grothe, E. Guilyardi, Y.-G. Ham, M. Hayashi, S. Ineson, D. Kang, S. Kim, W. M. Kim, J.-Y. Lee, T. Li, J.-J. Luo, S. McGregor, Y. Planon, S. Power, H. Rashid, H.-L. Ren, A. Santoso, K. Takahashi, A. Todd, G. Wang, G. Wang, R. Xie, W.-H. Yang, S.-W. Yeh, J. Yoon, E. Zeller, and X. Zhang (2018): El Niño-Southern Oscillation Complexity, *Nature*, *559*, 535–545
29. **Stuecker, M. F.**, M. Tigchelaar, and M. B. Kantar (2018): Climate variability impacts on rice production in the Philippines, *PLoS ONE*, *13*(8), e0201426, doi:10.1371/journal.pone.0201426
28. Proistosescu, C., A. Donohoe, K. C. Armour, G. Roe, **M. F. Stuecker**, and C. M. Bitz (2018), Radiative feedbacks from stochastic variability in surface temperature and radiative imbalance, *Geophys. Res. Lett.*, *45*, 5082–5094, doi:10.1029/2018GL077678
27. McGregor, S., **M. F. Stuecker**, J. B. Kajtar, M. H. England, and M. Collins (2018): Model Tropical Atlantic biases underpin diminished Pacific decadal variability, *Nature Climate Change*, *8*, 493–498, doi:10.1038/s41558-018-0163-4
26. Zhang, W., Z. Wang, **M. F. Stuecker**, A. G. Turner, F.-F. Jin, and X. Geng (2018): Impact of ENSO longitudinal position on teleconnections to the NAO, *Clim Dyn*, doi:10.1007/s00382-018-4135-1
25. **Stuecker, M. F.** (2018): Revisiting the Pacific Meridional Mode, *Scientific Reports*, *8*, doi:10.1038/s41598-018-21537-0
24. Park, K., S. M. Kang, D. Kim, **M. F. Stuecker**, and F.-F. Jin (2018): Contrasting local and remote effects of surface heating on polar warming and amplification, *J. Climate*, doi:10.1175/JCLI-D-17-0600.1
23. Geng, X., W. Zhang, F.-F. Jin, and **M. F. Stuecker** (2018): A new method for interpreting nonstationary running correlations and its application to the ENSO-EAWM relationship, *Geophys. Res. Lett.*, *45*, 327–334, doi:10.1002/2017GL076564
22. Kang, S. M., K. Park, F.-F. Jin, and **M. F. Stuecker** (2017), Common warming pattern emerges irrespective of forcing location, *J Adv Model Earth Sy*, *9*, 2413–2424, doi:10.1002/2017MS001083
21. **Stuecker, M. F.**, C. M. Bitz, and K. C. Armour (2017), Conditions leading to the unprecedented low Antarctic sea ice extent during the 2016 austral spring season, *Geophys. Res. Lett.*, *44*, 9008–9019, doi:10.1002/2017GL074691
20. Geng, X., W. Zhang, **M. F. Stuecker**, and F.-F. Jin (2017), Strong sub-seasonal wintertime cooling over East Asia and Northern Europe associated with super El Niño events, *Scientific Reports*, *7*:3770, doi:10.1038/s41598-017-03977-2
19. **Stuecker, M. F.**, A. Timmermann, F.-F. Jin, Y. Chikamoto, W. Zhang, A. T. Wittenberg, E. Widiasih, and S. Zhao (2017), Revisiting ENSO/Indian Ocean Dipole phase relationships, *Geophys. Res. Lett.*, *44*, 2481–2492, doi:10.1002/2016GL072308
18. Levine, A. F. Z., F.-F. Jin, and **M. F. Stuecker** (2017), A simple approach to quantifying the noise-ENSO interaction. Part II: the role of coupling between the warm Pool and equatorial zonal wind anomalies, *Clim Dyn*, *48*, 19–37, doi:10.1007/s00382-016-3268-3
17. Geng, X., W. Zhang, **M. F. Stuecker**, P. Liu, F.-F. Jin, and G. Tan (2016), Decadal modulation of the ENSO-East Asian winter monsoon relationship by the Atlantic Multidecadal Oscillation, *Clim Dyn*, *49*, 2531–2544, doi:10.1007/s00382-016-3465-0
16. Zhang, W., F.-F. Jin, **M. F. Stuecker**, A. T. Wittenberg, A. Timmermann, H.-L. Ren, J.-S. Kug, W. Cai, and M. Cane (2016), Unraveling El Niño’s Impact on the East Asian Monsoon and Yangtze River Summer Flooding, *Geophys. Res. Lett.*, *43*, 11375–11382, doi:10.1002/2016GL071190
15. **Stuecker, M. F.**, F.-F. Jin, A. Timmermann, and S. McGregor (2016), Reply to “Comments on ‘Combination Mode Dynamics of the Anomalous Northwest Pacific Anticyclone’”, *J. Climate*,

- 29, 4695–4706, doi:10.1175/JCLI-D-15-0558.1
14. Zhang, W., H. Li, **M. F. Stuecker**, F.-F. Jin, and A. G. Turner (2016), A New Understanding of El Niño's Impact over East Asia: Dominance of the ENSO Combination Mode, *J. Climate*, 29, 4347–4359, doi:10.1175/JCLI-D-15-0104.1
 13. **Stuecker, M. F.**, F.-F. Jin, and A. Timmermann (2015), El Niño-Southern Oscillation frequency cascade, *Proceedings of the National Academies of the Sciences*, 112, 13490–13495, doi: 10.1073/pnas.1508622112
 12. **Stuecker, M. F.**, A. Timmermann, J. Yoon, and F.-F. Jin (2015), Tropospheric Biennial Oscillation (TBO) indistinguishable from white noise, *Geophys. Res. Lett.*, 42, 7785–7791, doi: 10.1002/2015GL065878
 11. Zhang, W., Y. Wang, F.-F. Jin, **M. F. Stuecker**, and A. G. Turner (2015), Impact of different El Niño types on the El Niño/IOD relationship, *Geophys. Res. Lett.*, 42, 8570–8576, doi: 10.1002/2015GL065703
 10. Ren, H.-L., J. Zuo, F.-F. Jin, and **M. F. Stuecker** (2015), ENSO and annual cycle interaction: The combination mode representation in CMIP5 models, *Clim Dyn*, 46, 3753–3765, doi: 10.1007/s00382-015-2802-z
 9. Zhang, W., H. Li, F.-F. Jin, **M. F. Stuecker**, A. G. Turner, and N. Klingaman (2015), The Annual-Cycle Modulation of Meridional Asymmetry in ENSO's Atmospheric Response and Its Dependence on ENSO Zonal Structure, *J. Climate*, 28, 5795–5812, doi:10.1175/JCLI-D-14-00724.1
 8. **Stuecker, M. F.**, F.-F. Jin, A. Timmermann, and S. McGregor (2015), Combination Mode Dynamics of the Anomalous Northwest Pacific Anticyclone, *J. Climate*, 28, 1093–1111, doi:10.1175/JCLI-D-14-00225.1
 7. McGregor, S., A. Timmermann, **M. F. Stuecker**, M. H. England, M. Merrifield, F.-F. Jin, and Y. Chikamoto (2014), Recent Walker circulation strengthening and Pacific cooling amplified by Atlantic warming, *Nature Climate Change*, 4, 888–892, doi:10.1038/nclimate2330
 6. Stein, K., A. Timmermann, N. Schneider, F.-F. Jin, and **M. F. Stuecker** (2014), ENSO seasonal synchronization theory, *J. Climate*, 27, 5285–5310, doi:http://dx.doi.org/10.1175/JCLI-D-13-00525.1
 5. Widlansky, M., A. Timmermann, S. McGregor, **M. F. Stuecker**, and W. Cai (2014), An inter hemispheric tropical sea level seesaw due to El Niño Taimasa, *J. Climate*, 27, 1070–1081, doi:10.1175/JCLI-D-13-00276.1
 4. Ren, H.-L., F.-F. Jin, **M. F. Stuecker**, and R. Xie (2013), ENSO Regime Change since the Late 1970s as Manifested by Two Types of ENSO, *Journal of the Meteorological Society of Japan*, 91, 835–842, doi:10.2151/jmsj.2013-608
 3. **Stuecker, M. F.**, A. Timmermann, F.-F. Jin, S. McGregor, and H.-L. Ren (2013), A Combination Mode of Annual Cycle and the El Niño - Southern Oscillation, *Nature Geoscience*, 6, 540–544, doi:10.1038/ngeo1826
 2. McGregor, S., A. Timmermann, N. Schneider, **M. F. Stuecker**, and M. H. England (2012), The effect of the South Pacific Convergence Zone on the termination of El Niño events and the meridional asymmetry of ENSO, *J. Climate*, 25, 5566–5586, doi:10.1175/JCLI-D-11-00332.1
 1. **Stuecker, M. F.**, and R. E. Zeebe (2010), Ocean chemistry and atmospheric CO₂ sensitivity to carbon perturbations throughout the Cenozoic, *Geophys. Res. Lett.*, 37, L03609, doi:10.1029/2009GL041436

Peer-reviewed book and report chapters

4. Lee, J.-Y., J. Marotzke, G. Bala, L. Cao, S. Corti, J. P. Dunne, F. Engelbrecht, E. Fischer, J. C. Fyfe, C. Jones, A. Maycock, J. Mutemi, O. Ndiaye, S. Panickal, T. Zhou (2021), Future Global Climate: Scenario-Based Projections and Near-Term Information. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. [Contributing Authors: K. Armour, N. Bellouin, I. Bethke, M. Byrne, C. Cassou, D. Chen, A. Cherchi, H. Christensen, S. Connors, A. Diluca, S. Drijfhout, C. G. Fletcher, P. Forster, J. Garcia-

- Serra, N. P. Gillett, D. S. Kaufmann, D. P. Keller, B. Kravitz, H. Li, Y. Liang, A. MacDougall, E. Malinina, M. Menary, W. Merryfield, S. Milinski, S.-K. Min, Z. Nicholls, D. Notz, B. Pearson, M. Priestley, J. Quaas, A. Ribes, A. C. Ruane, J.-B. Sallee, E. Sanchez-Gomez, S. I. Seneviratne, A. Slangen, C. Smith, **M. F. Stuecker**, R. Swaminathan, P. W. Thorne, K. B. Tokarska, M. Toohey, A. Turner, D. Volpi, C. Xiao, K.-S. Yun, and G. Zappa]
3. Karamperidou, C., **M. F. Stuecker**, A. Timmermann, K.-S. Yun, S.-S. Lee, F.-F. Jin, A. Santoso, M. J. McPhaden, and W. Cai (2020), ENSO in a Changing Climate: Challenges, Paleo-Perspectives, and Outlook. In *El Niño Southern Oscillation in a Changing Climate* (eds M. J. McPhaden, A. Santoso, and W. Cai), doi:10.1002/9781119548164.ch21
 2. Taschetto, A. S., C. C. Ummenhofer, **M. F. Stuecker**, D. Dommenges, K. Ashok, R. R. Rodrigues, and S.-W. Yeh (2020), ENSO Atmospheric teleconnections. In *El Niño Southern Oscillation in a Changing Climate* (eds M. J. McPhaden, A. Santoso, and W. Cai), doi:10.1002/9781119548164.ch14
 1. Jin, F.-F., H.-C. Chen, S. Zhao, M. Hayashi, C. Karamperidou, **M. F. Stuecker**, R. Xie, and L. Geng (2020), Simple ENSO Models. In *El Niño Southern Oscillation in a Changing Climate* (eds M. J. McPhaden, A. Santoso, and W. Cai), doi:10.1002/9781119548164.ch6

Publications only reviewed by editor

3. **Stuecker, M. F.** (2021), New insights into future tropical climate change, *Nature Climate Change*, doi:10.1038/s41558-021-01107-5
2. **Stuecker, M. F.**, C. Karamperidou, A. D. Nugent, G. Torri, S. Coats, and S. Businger (2021), Comment on "The Financial Dilemma of Students Pursuing an Atmospheric Science Graduate Degree in the United States" by Card et al. (2020), *Bull. Am. Meteorol. Soc.*, 102, 323-324, doi:10.1175/BAMS-D-20-0265.1
1. Chen, N., S. Thual, and **M. F. Stuecker** (2019), El Niño and the Southern Oscillation: Theory, *Elsevier Reference Module in Earth Systems and Environmental Sciences (ESES)*

Presentations

Invited Seminar Talks

19. *upcoming*: **George Mason University**, Department of Atmospheric, Oceanic & Earth Sciences (USA), TBD/2021 (virtual)
18. **National Taiwan University** (Taiwan), 11/2019
17. **Imperial College London** (UK), 07/2019
16. **University of Hawai'i at Mānoa**, Department of Oceanography (USA), 04/2019
15. **Ulsan National Institute for Science and Technology (UNIST)** (South Korea), 03/2019
14. **Chonbuk National University** (South Korea), 11/2018
13. **New York University**, Courant Institute of Mathematical Sciences (USA), 04/2017
12. **Pohang University of Science and Technology (POSTECH)** (South Korea), 03/2017
11. **Ulsan National Institute for Science and Technology (UNIST)** (South Korea), 03/2017
10. **IBS Center for Climate Physics (ICCP)** (South Korea), 02/2017
9. **China Meteorological Administration** (China), 07/2016
8. **Max-Planck-Institute for Meteorology** (Germany), 04/2016
7. **University of Bergen**, Bjerknes Centre for Climate Research (Norway), 10/2015
6. **Columbia University**, Lamont-Doherty Earth Observatory (USA), 09/2015
5. **Geophysical Fluid Dynamics Laboratory (GFDL)** (USA), 08/2015
4. **University of Tokyo**, Atmosphere and Ocean Research Institute (Japan), 06/2015
3. **University of Tokyo**, Research Center for Advanced Science and Technology (Japan), 06/2015
2. **University of New South Wales**, Climate Change Research Centre (Australia), 02/2015
1. **University of Bergen**, Bjerknes Centre for Climate Research (Norway), 9/2013

Invited Oral Conference and Workshop Presentations

12. Mechanisms of regional climate change: Demonstrating a strong control of future equatorial warming by off-equatorial forcing, AOGS annual meeting, Singapore, 08/2021 (**Kamide Lecture**)
11. Model biases and tropical Pacific climate change, Workshop "Towards more reliable regional climate projections", virtual, 06/2021 (**invited talk**)
10. Interactions between the tropical Pacific climate mean state and its variability, virtual Physical Oceanography Graduate Student (POGS) Symposium, 01/2021 (**invited talk**)
9. What lead to the unprecedented low Antarctic sea ice extent during the 2016 austral spring season?, AMOS-ICTMO 2019, Darwin, Australia, 06/2019 (**invited talk**)
8. Tropospheric Biennial Oscillation (TBO) indistinguishable from white noise, 14th East Asian Climate (EAC) workshop, Hong Kong, China, 04/2019 (**invited talk**)
7. A hierarchy of climate models to explain the observed modes of Indo-Pacific climate variability, Workshop on Interactions between Indo-Pacific Ocean and Asian Monsoon, Honolulu, USA, 06/2018, (**invited talk**)
6. Revisiting the interpretation of lead/lag correlations as exemplified by the relationship between ENSO and the Indian Ocean Dipole, Tropical interbasin interactions workshop, Xiamen, China, 01/2018, (**invited talk**)
5. Seasonal ENSO dynamics, teleconnections and predictability, ENSO complexity workshop, ICCP, South Korea, 10/2017 (**invited 30 min talk**)
4. ENSO as a potential source for global seasonal climate predictability: From Yangtze River flooding events to Indian Ocean Dipole variability to the 2016 extreme low Antarctic sea ice extent, 16th CTWF International Symposium on Advances in Seasonal to Decadal Prediction, Beijing, China, 09/2017 (**invited 30 min talk**)
3. Interconnected climate variability in the Pacific and Indian Oceans, SIAM Conference on Applications of Dynamical Systems, Snowbird, USA, 05/2017 (**invited mini symposium talk**)
2. The El Niño-Southern Oscillation Frequency Cascade, EGU General Assembly, Vienna, Austria, 04/2016 (**invited talk within the CL division meeting for the Outstanding Young Scientist Award**)
1. Mathematical peculiarities of El Niño, Mathematics and Climate Research Network (MCRN) annual meeting, Chapel Hill, North Carolina, USA, 09/2014 (**invited talk**)

Contributed Oral Conference and Workshop Presentations

22. Mechanisms that contribute to ENSO seasonal synchronization, ENSO conceptual models CLIVAR research group webinar, 11/2020
21. Equatorial warming dominated by off-equatorial forcing, CFMIP 2019 meeting, Mykonos, Greece, 09/2019
20. Polar amplification dominated by local forcing and feedbacks, NOAA summer institute, Steamboat Springs, USA, 07/2019
19. Polar amplification dominated by local forcing and feedbacks, Polar Amplification Model Intercomparison Project (PAMIP) workshop, Totnes, UK, 06/2019
18. Roles of local and remote forcing and feedbacks for equatorial warming, East Asian workshop on Climate Dynamics, Busan, South Korea, 05/2019
17. The relationship between the Pacific Meridional Mode, Central Pacific ENSO, and Pacific decadal variability, CSHOR ENSO symposium, Hobart, Australia, 01/2019
16. Local processes dominate over remote processes in polar amplification, AGU Fall Meeting, Washington D.C., USA, 12/2018
15. Quantifying the role of local and remote processes in polar amplification, KMS fall meeting 2018, Jeju island, South Korea, 10/2018
14. Quantifying the role of local and remote processes in polar amplification, CFMIP 2018 meeting,

Boulder, USA, 10/2018

13. Revisiting the Pacific Meridional Mode, AOGS annual meeting, Honolulu, USA, 06/2018
12. Tropical trans-basin variability, Using past observations to constrain future climate variability and change workshop, University of Washington, Seattle, USA, 02/2018
11. Cause of the unprecedented low Antarctic sea ice extent during the 2016 austral spring season, sea ice prediction workshop, University of Washington, Seattle, USA, 07/2017
10. El Niño And The East Asian Monsoon: Unraveling The Roles Of The Annual Cycle And Air/Sea Interactions, AGU Fall Meeting, San Francisco, USA, 12/2016
9. Tropospheric Biennial Oscillation (TBO) indistinguishable from white noise, EGU General Assembly, Vienna, Austria, 04/2016
8. The El Niño-Southern Oscillation Frequency Cascade, AMS 96th Annual Meeting, New Orleans, USA, 01/2016
7. Tropospheric Biennial Oscillation (TBO) indistinguishable from white noise, AMS 96th Annual Meeting, New Orleans, USA, 01/2016
6. Combination Mode Dynamics of the Indo-Pacific Response to the El Niño-Southern Oscillation, AOGS annual meeting, Sapporo, Japan, 07/2014
5. Combination Mode of Annual Cycle and the El Niño - Southern Oscillation: Genesis, Impacts and attribution of air/sea coupling, Ocean Sciences Meeting, Honolulu, USA, 02/2014
4. Combination Mode of Annual Cycle and the El Niño - Southern Oscillation, Tropical Weather and Climate Dynamics (TWCD) Workshop in Honolulu, USA, 10/2013
3. A Combination Mode of Annual Cycle and the El Niño - Southern Oscillation, Third CLIVAR Workshop on the Evaluation of ENSO Processes in Climate Models, Hobart, Australia, 01/2013
2. The role of atmospheric nonlinearity in the phase-transition of ENSO, Summer Workshop on ENSO at the University of Hawai'i at Mānoa, USA, 06/2012
1. The impact of the South Pacific Convergence Zone on the phase transition of ENSO - Insights from CGCM results, 10th International Conference on Southern Hemisphere Meteorology and Oceanography (ICSHMO10), New Caledonia, 04/2012

Poster Presentations

10. Conditions leading to the unprecedented low Antarctic sea ice extent during the 2016 austral spring season, Ocean Sciences Meeting, Portland, USA, 02/2018
9. Cause of the unprecedented low Antarctic sea ice extent during the 2016 austral spring season, AGU Fall Meeting, New Orleans, USA, 12/2017
8. El Niño And The East Asian Monsoon: Unraveling The Roles Of The Annual Cycle And Air/Sea Interactions, AMS 97th Annual Meeting, Seattle, USA, 01/2017
7. The ENSO frequency cascade, AOGS annual meeting, Beijing, China, 08/2016
6. Tropospheric Biennial Oscillation (TBO) indistinguishable from white noise, AOGS annual meeting, Beijing, China, 08/2016
5. El Niño-Southern Oscillation frequency cascade, EGU General Assembly, Vienna, Austria, 04/2016 (**Outstanding Student Poster and PICO (OSPP) Award**)
4. A new framework explaining linkages between ENSO and the Monsoon, Monsoons and the ITCZ: the annual cycle in the Holocene and the future workshop at Columbia University, New York, USA, 09/2015
3. New insights in the genesis and persistence of the anomalous low-level North-West Pacific Anticyclone, ENSO workshop at the University of New South Wales, Sydney, Australia, 02/2015 (**Best Student Presentation Award**)
2. A combination mode of annual cycle and the El Niño-Southern Oscillation: Genesis, impacts and attribution of air/sea coupling, The Latsis Symposium 2014: Atmosphere and Climate Dynamics, Zuerich, Switzerland, 06/2014

1. Evidence for combination tones between the El Niño-Southern Oscillation and the Annual Cycle, AGU Fall Meeting, San Francisco, USA, 12/2012

Campus or Departmental Talks

8. **University of Hawai'i at Mānoa**, Department of Atmospheric Sciences (USA), 09/2021
7. **IBS Center for Climate Physics (ICCP)** (South Korea), 07/2018
6. **University of Washington**, School of Oceanography (USA), 04/2017
5. **University of Washington**, Department of Atmospheric Sciences (USA), 01/2017
4. **University of Hawai'i at Mānoa**, Department of Atmospheric Sciences (USA), 05/2016
3. **University of Hawai'i at Mānoa**, Department of Atmospheric Sciences (USA), 11/2015
2. **University of Hawai'i at Mānoa**, Department of Meteorology (USA), 12/2014
1. **University of Hawai'i at Mānoa**, Department of Meteorology (USA), 4/2012

Group Members and Visitors (Current and Former)

Jacob Gunnarson (UH Oceanography graduate student; fall 2021–present)

pending: Julien Boucharel (visiting researcher; planned arrival: spring 2022)

pending: Lisa Maillard (visiting graduate student; planned arrival: spring 2022)

In-Won Kim (postdoc; 09/2018–12/2019)

Joaquin Blanco (postdoc; 10/2018–10/2019)

Christian Wengel (postdoc; 05/2019–12/2019)

Advising

UH graduate students advised: 1

Jacob Gunnarson (main adviser; start: fall semester 2020; Oceanography)

UH PhD comprehensive exam committees: 3

Xinyi Yang (exam date: 04/2020; Atmospheric Sciences)

Lucas Ellison (planned exam date: 11/2021; Earth Sciences)

Kate Feloy (planned exam date: fall 2021; Oceanography)

UH MS thesis committees: 3

Lintong Cai (planned graduation fall 2021; Atmospheric Sciences)

Bailey Donaldson (ongoing; Oceanography)

Stacey Naeemullah (ongoing; Oceanography)

UH Oceanography interim graduate student advisory committees: 5

Jacob Gunnarson, Gina Selig, Nicolas Vanderzyl, Corinne Hite, Kira Fish

Externally advised PhD students: 2

Yechul Shin (04/2019–Present; 12/2020 pre-defense date; UNIST (South Korea))

Doyeon Kim (04/2019–Present; UNIST (South Korea))

Number of supervised postdocs (at ICCP): 3

In-Won Kim (09/2018–12/2019), Joaquin Blanco (10/2018–10/2019), Christian Wengel (05/2019–12/2019)

Informally mentored students: 7

Xin Geng (NUIST, China), Kiwoong Park (UNIST, South Korea), Chao Liu (NUIST, China), Feng Jiang (NUIST, China), So-Won Park (POSTECH, South Korea), Zhiyu Li (NUIST, China), Yu Zhang (Ocean University of China, China)

Teaching*Courses taught at UH Mānoa (2020 – Present)*

semester	course name	course number	level	students	credits	student semester hours
FA21	Supervised Research	OCN699	graduate	1	3	3
FA21	Sustainability in a changing world	OCN105/SUST115	undergrad	500	1.5/3	750
SP21	Seminar	OCN780	graduate	6	1	6
SP21	Large-Scale Ocean-Atmosphere Interaction	OCN666/ATMO666	graduate	9	0.75/3	6.75
SP21	Sustainability in a changing world	OCN105/SUST115	undergrad	130	1.5/3	195
FA20	Sustainability in a changing world	OCN105/SUST115	undergrad	233	1/3	233
SU20	<i>credits received for moving class online</i>	OCN105/SUST115	undergrad	–	2	–
SP20	Sustainability in a changing world	OCN105/SUST115	undergrad	99	1/3	99
total				978		1,292.75

Credits received are for lead instructor and co instructor roles; credit notation: received credit / total credit of class

Previous Teaching

Instructor: "Advanced Geophysical Fluid Dynamics" (graduate class), Pusan National University spring semester 2019, South Korea

Instructor: "Short CESM summer school", 2018 summer school at Pusan National University, South Korea, 08/2018

Instructor and Co-Organizer: "The Ocean's role in climate", 2018 summer school at Pusan National University, South Korea, 07/2018

Guest Lecturer: "Exploring the Atmospheric Sciences" (ATMS 220), University of Washington summer quarter 2017 and fall quarter 2017

Guest Lecturer: "Climate Modeling" (ATM S 559), University of Washington spring quarter 2017, Instructor: Cecilia Bitz

Guest Lecturer: invited guest lecture in special topics graduate course on ENSO dynamics, Pusan National University (PNU) spring semester 2017, Instructor: June-Yi Lee

Guest Lecturer: "Climate modeling, Data Analysis and Applications (ATMO 752)", UH Mānoa fall semester 2016, Instructor: Christina Karamperidou

Instructor: tutorials on "Geospatial data analysis with Ferret" during MCRN annual meeting (09/2014) and ACDC summer school (08/2013)

Assistant Teacher (full-time): special education school for the blind and visually impaired (von-Vincke-Schule), Germany, 09/2001–07/2002

Service: UH Mānoa

Department of Oceanography: Graduate student recruitment committee (2020 – Present)

Department of Oceanography: Department representative at University of Hawai'i at Mānoa Virtual Graduate Schools Fair (12/2020)

SOEST: Student recruitment committee (2020 – Present)

UH Mānoa: Foundations Board (2021 – 2024)

Service: Professional

IPCC Contributing Author for the Sixth Assessment Report (AR6), Working Group I, Chapter 4

Member: CLIVAR research focus group member: Tropical basin interaction (2020 – Present)

Member: CLIVAR research group: ENSO conceptual models (2020 – Present)

Member: NOAA Marine Ecosystem Task Force (2020 – Present)

Member: JAMSTEC-IPRC Research Cooperation (JICore) project (2021 – Present)

Conference and Workshop Organizing Committee:

Local Advisory Committee member for the AOGS 2022 conference in Honolulu (06/2022)

WCRP-CLIVAR Workshop on Climate Interactions among the Tropical Basins (02/2021; virtual)

2nd ICCP CESM2 Large Ensemble workshop (02/2021; virtual)

1st ICCP CESM2 Large Ensemble workshop (11/2020; virtual)

"East Asian workshop on Climate Dynamics" at ICCP in South Korea (05/2019)

PCC workshop at the University of Washington "Using past observations to constrain future climate variability and change" (02/2018)

ENSO workshop at the University of Hawai'i at Mānoa (06/2012)

Convener:

Toward Predictive Understanding of Pacific Decadal Variability and its Global Implications (Ocean Sciences 2022), *proposed*

El Niño in a changing climate (Ocean Sciences 2022), *proposed*

Subtropical Air-Sea Interaction (Ocean Sciences 2022), *proposed*

Tropical inter-basin interaction: processes, pathways and predictability (AGU 2020)

Atmospheric Teleconnections From The Equatorial Pacific: 50 Years of Progress on The Role of Tropical Oceans In Climate and Its Predictability (AGU 2019)

El Niño complexity and change (AOGS 2018)

ENSO dynamics, observations, and predictability in light of the recent 2015/16 El Niño (AGU 2016)

Dynamics, Prediction, Impacts and Changes of ENSO (AOGS 2016)

Chair:

Tropical inter-basin interaction: processes, pathways and predictability (AGU 2020)

Advances in Climate Physics: From Paleoclimate to Future Climate (KMS fall meeting 2018)

El Niño complexity and change (AOGS 2018)

Decadal Variability and Predictability (AMS 2017)

ENSO dynamics, observations, and predictability in light of the recent 2015/16 El Niño (AGU 2016)

Dynamics, Prediction, Impacts and Changes of ENSO (AOGS 2016)

Member and contributor: in the Mathematics and Climate Research Network (MCRN): facilitating collaborations between climate scientists and mathematicians, giving talks, organizing a "hackathon", 2014 – 2016

Proposal Reviewer: National Science Foundation

Journal Reviewer: Nature, Nature Geoscience, Nature Climate Change, Nature Communications, Proceedings of the National Academy of Sciences of the United States of America, Bulletin of the American Meteorological Society, Scientific Reports, Geophysical Research Letters, Environmental Research Letters, Journal of Climate, Journal of Geophysical Research - Atmospheres, Journal of Geophysical Research - Oceans, Climate Dynamics, Theoretical and Applied Climatology, Wiley AGU Books

Fellowship Reviewer: East-West Center Graduate Degree Fellowship

Research highlighted by Journals and Editors

Nature Climate Change News & Views article "Local processes with a global reach" (P. Taylor), 2018

AGU EOS Research Spotlight: "New Modeling Framework Improves Radiative Feedback Estimates", 2018

AGU Editor's Highlight: "Record-low 2016 Antarctic sea ice due to 'perfect storm' of tropical, polar conditions", 2017

AGU Editor's Highlight: "Revisiting ENSO/Indian Ocean Dipole phase relationships", 2017

Service: Outreach via Press Interviews

Interview with Hawaii Public Radio about future El Niño changes (airing date: August 27, 2021)

Interview with Ka Pili Kai magazine (Volume 3, Number 2, 2021)

Interview with Earther (7. May 2020; Article: "An Ancient Type of El Niño Could Awaken Because of Climate Change" by Dharna Noor)

Interview with The Maui News (24. January 2020; Article: "Hotter, brighter days up ahead UH professor offers" by Dakota Grossman)

Interview with Radio Ecoshock about polar climate change (Airing date: January 2019; 24 minutes)

Interview with Radio New Zealand about El Niño predictability and impacts (Airing date: 25. July 2013; 20 minutes)

Service: Education and Community Outreach

Outreach Talk: El Niño and sea level variability, Pacific International Training Desk Webinar Series, 10/2020

Outreach Talk: El Niño - the climate child of the Pacific, Busan National Science Museum, South Korea, 09/2018

Outreach Volunteer: SOEST open house science demonstrations ("Weather in a tank") - 10/2013; SOEST open house: green screen demonstrations - 10/2015; ClimateSnack Blog contributing author; ClimateFeedback.org contributing reviewer

Outreach Consultant: Scientific advise for a general audience science publication ("Das Ozean Buch"/"The Ocean Book" by Esther Gonstalla, published in German, English, and Korean)

Other Academic and Professional Activities

Guest: 2021 UCAR Annual Members Meeting, 10/2021

Invited Participant: STS forum (Science and Technology in Society forum), *virtual meeting*, 10/2021

Participant: ENSO in Large Ensembles workshop at the University of Colorado in Boulder, 08/2021

Participant: Workshop on JAMSTEC-IPRC Collaborative Research (JICore), *virtual meeting*, 02/2021

Invited Participant: STS forum (Science and Technology in Society forum), *virtual meeting*, 10/2020

Participant: NOAA fellowship summer institute, Steamboat Springs, Colorado, 07/2019

Invited Fellow: STS forum (Science and Technology in Society forum) Future Leaders Program fellow, Kyoto, Japan, 10/2018

Participant: Workshop: Pan-tropical inter-basin climate interactions, Jeju Island, South Korea, 08/2018

Participant: PCC Summer Institute: "Population Health and Climate Change", Friday Harbor, USA, 09/2017

Participant: STATMOS/SAMSI workshop on climate statistics at NCAR, Boulder, USA, 07/2017

Participant: Mathematics and Climate Research Network (MCRN) annual meeting in Philadelphia, USA, 09/2016

Participant: Mathematics and Climate Research Network (MCRN) annual meeting in Chapel Hill, USA, 09/2014

Participant: Sustainable Climate Risk Management (SCRiM) summer school at Penn state University, USA, 08/2014

Participant: Alpine summer school "Dynamics, Stochastics and Predictability of the Climate System" in Valsavarenche, Italy, 06/2014

Participant: Advanced Climate Dynamics Course (ACDC) "Dynamics of the Last Deglaciation" in Nyksund, Norway, 08/2013

Participant: NCAR Community Earth System Model tutorial in Boulder, USA, 07/2012

Current and Past Engagement in the following Professional Societies & Associations

American Geophysical Union (AGU), Asia Oceania Geosciences Society (AOGS), European Geosciences Union (EGU), American Meteorological Society (AMS), Mathematics and Climate Research Network (MCRN)