Personal information

Jin-Song von Storch (née Xu), born December 12, 1961 in Peking, China
Senior scientist at Max-Planck Institute for Meteorology
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Education

1990:	Dr. rer. nat. (Ph.D.): Geoscience, University Hamburg Dissertation : "Analysis and Prediction of El Niño Southern Oscillation Phenomenon Using Principal Oscillation Pattern Analysis " Supervision: Hans von Storch
1987:	Diplom (M.Sc.): Meteorology, University Hamburg
1984:	Vordiplom (B.Sc.): Physics, University Hamburg

Professional career

Since 2018:	Professor at University Hamburg
2005:	venia legendi, University Hamburg Inaugural Lecture:"Einführung in Statistik: Das Konzept des Schätzens"
Since 2004:	Senior Scientist (W2), Group Leader, Deputy Director of department The Ocean in the Earth System (now Department Climate Variability) at Max-Planck Institute for Meteorology
1999-2004:	Heisenberg Programme, University Hamburg
1998:	Habilitation, University Hamburg Habilitationsschrift:"Statistik und Konzepte der Klimavariabilität"
1996-1998:	Research scientist, University Hamburg
1990-1996:	Postdoc, Max-Plack Institute for Meteorology, Hamburg

Selected professional activities

2011 - 2020	Editor of Ocean Dynamics
2015 - 2018	Associated Editor of Oxford Research Encyclopedia

Awards

2015:	Visiting professor to Ocean University of China (selected by the Recruitment Program of High-end Foreign Experts of the State Administration of Foreign Experts Affairs, China)
1999-2004:	Heisenberg Programme awarded by DFG (Germany Research Foundation)
1981-1987:	Stipend awarded by the Chinese government

Projects

14. EUREC^{4}A-OA (a JPI Ocean & Climate International Research Project): 2020-2023, 1 PostDoc for 1.5 years

13. TRR181, Project L2: The interior energy pathway: internal wave emission by quasi-balanced flows (1 PhD position for the period July 2016 - June 2020)

12. TRR181, Project W2: Energy transfer through low-mode internal waves (1 Postdoc for the period July 2016 -June 2017, 1 PhD position for the period July 2017-June 2020, 1 PhD for July 2021-June 2024)

11. Cluster of Excellence "Climate, Climatic Change, and Society" (CLICCS), Project A6: (1 PostDoc for the period 2020-2025)

10. EU Horizon 2020 project PRIMAVERA 'PRocess based climate sIMulation:AdVances in high-resolution modelling and European climate Risk Assessment', PI, (1 postdoc for the period 2016-2019)

9. MiKlip project 'Atmospheric and Oceanic Data Assimilation Plus ENsemble Generation' (AODA-PENG), Co-PI, 1 postdoc position for 2013-2014

8. EU-project THOR 'Thermohaline Overturning - at Risk?', WP 'Coordinated multi-model ensemble experiments to assess the predictability of the THC', Co-PI, 1 postdoc position granted for 2009-2011

7. CLiSAP II, Research Area A 'Climate variability and predictability', Coordinator, 1 post-doc position granted for 11.2012-10.2017

6. CliSAP project 'Stochastic parameterizations in atmosphere and ocean models and their implications for climate prediction', PI, 1 postdoc position granted for 09.2009-01.2012

5. STORM: Consortium project 'High-resolution community climate change simulations (https://verc.enes.org/community/projects/national-projects/german-projects/storm/), 2009-2014, Coordinator, 1 scientific programmer supported by CliSAP for 2010-2011

4. SFB 512: Project (TP) 'Vorhersagbarkeit in Ozean und Meereis', PI (TP-Leiterin), 1 PhD position granted for 2007-2009

3. SFB 512: Project (TP) 'Variabilität in Ozean und Meereis', PI (TP-Leiterin), 1 PhD position granted for 2004-2006

2. SFB 512 'Cyclones and the North Atlantic Climate System': Project (TP) 'Entwicklung eines empirqischen atmosphärischen Modells zur Untersuchung der niederfrequenten ozeanischen Variabilität', PI (TP-Leiterin), 1 PhD position granted for 2001-2003

1. DFG project (Sachbeihilfe) 'Die Atmosphäre und ihr Drehimpuls', PI, 1 PhD position granted for 2001-2004

Publications (peer-reviewed and book contributions)

101. Chengcheng Yang, Xuhua Cheng, **Jin-Song von Storch**, Jianhuang Qin, Bo Qiu, 2023: Interbasin Differences in Interannual Variations of the Antarctic Circumpolar Current Transport. Journal of Geophysical Research - Oceans (in review)

100. **von Storch, Jin-Song**, 2023: Equilibrium fluctuations II: The integral effect. Tellus (submitted)

99. Ssebandeke, John, **Jin-Song von Storch**, and Nils Brüggemann,2023: Sensitivity of the global oceanic Lorenz Energy Cycle. Ocean Dynamics (accepted)

98. Putrasahan, Dian and **Jin-Song von Storch**, 2023: Temporal and spatial scale dependency of air-sea interactions via the vertical mixing mechanism. GRL (submitted).

97. Lüschow, Veit and **Jin-Song von Storch**, 2023: Sensitivity of internal-tide generation to stratification and its implication for deep overturning circulations. JPO (in review).

96. **von Storch, Jin-Song**, Eileen, Hertwig, Veit Lüschow, Nils Brüggemann, Helmuth Haak, Peter Korn, Vikram Singh, 2023: Open-ocean tides simulated by ICON-O, version icon-2.6.6. Geoscientific Model Development, 16 (17), pp 5179-5196. `https://gmd.copernicus.org/articles/16/5179/2023/`, DOI:10.5194/gmd-16-5179-2023.

95. **von Storch, J.-S.** and V. Lüschow, 2023: Wind power input to ocean near-inertial waves diagnosed from a 5-km global coupled atmosphere-ocean general circulation model. Journal of Geophysical Research: Oceans, 128, e2022JC019111. `https://doi.org/10.1029/2022JC019111`

94. Hohenegger et al., 2023: ICON-Sapphire: simulating the components of the Earth System and their interactions at kilometer and subkilometer scales. Geosci.Model Dev., 16,779-811, https://doi.org/10.5194/gmd-16-779-2023

93. **von Storch, J.-S.**, 2022: On Equilibrium Fluctuations. Tellus A: Dynamic Meteorology and Oceanography, 74(1), pp.364–381. DOI: `http://doi.org/10.16993/tellusa.25`

92. Korn, P., Brüggemann, N., Jungclaus, J. H., Lorenz, S. J., Gutjahr, O., Haak, H., L.Linardakis, C. Mehlmann, U. Mikolajewicz, D. Notz, D.A. Putrasahan, V. Singh, **J.-S.von Storch**, X. Zhu, and J. Marotzke, 2022: ICON-O: The ocean component of the ICON Earth system model—Global simulation characteristics and local telescoping capability. Journal of Advances in Modeling Earth Systems, 14, e2021MS002952. https://doi.org/10.1029/2021MS002952

91. Jungclaus,J. H., S. J. Lorenz, H. Schmidt, V. Brovkin, N. Brüggemann, F. Chegini, T. Crüger, P. De-Vrese, V. Gayler, M. A. Giorgetta, O. Gutjahr, H. Haak, S. Hagemann, M. Hanke, T. Ilyina, P. Korn, J. Kröger, L. Linardakis, C. Mehlmann, U. Mikolajewicz, W. A. Müller, J. E. M. S. Nabel, D. Notz, H. Pohlmann, D. A. Putrasahan, T. Raddatz, L. Ramme, R. Redler, C. H. Reick, T. Riddick, T. Sam, R. Schneck, R. Schnur, M. Schupfner, **J.-S. von Storch**, F. Wachsmann, K.-H. Wieners, F. Ziemen, B. Stevens, J. Marotzke, M. Claussen, 2022: The ICON Earth System Model Version 1.0. Journal of Advances in Modeling Earth Systems, 14, e2021MS002813. https://doi.org/10.1029/2021MS002813

90. Lohmann, K., D. A. Putrasahan, **J.-S. von Storch**, O. Gutjahr, J. H. Jungclaus, H. Haak, 2021: Response of Northern North Atlantic and Atlantic Meridional Overturning Circulation to Reduced and Enhanced Wind Stress Forcing. Journal of Geophysical Research: Oceans, 126, e2021JC017902. https://doi.org/10.1029/2021JC017902

89. Lüschow, V., Marotzke, J., and **J.-S. von Storch** 2021: Overturning response to a doubling of the surface wind stress in an eddying and a non-eddying ocean. Journal of Physical Oceanography, 51, 1007-1020. DOI: `https://doi.org/10.1175/JPO-D-20-0176.1`

88. Putrasahan, D. A., Gutjahr, O., Haak, H., Jungclaus, J., Lohmann, K., Roberts, M. J., **von Storch, J.-S.**, 2021: Effect of resolving ocean eddies on the response of the climate system to abrupt 4xCO_2 forcing. Geophysical Research Letters, 48, e2020GL092049. `https://doi.org/10.1029/2020GL092049`

87. Putrasahan, D.A. and **J.-S. von Storch**, 2021: Piecewise Evolutionary Spectra: A practical approach to understanding projected changes in spectral relationships between circulation modes and regional climate under global warming. Geophysical Research Letters, 48, e2021GL093898. `https://doi.org/10.1029/2021GL093898`

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85. Jonas Löb, Janna Kühler, Christian Mertens, Maren Walter, Zhuhua Li, **Jin-Song von Storch**, Zhongxiang Zhao, and Monika Rhein, 2020: Observations of the low mode internal tide and its interaction with mesoscale flow south of the Azores. Geophysical Research: Oceans, 125, e2019JC015879. https://doi.org/10.1029/2019JC015879

84. Li, Z. and **von Storch, J.-S.**, 2020: M_2 internal-tide generation in STORMTIDE2. Journal of GeophysicalResearch: Oceans, 125, e2019JC015453. https://doi.org/10.1029/2019JC015453

83. Reimann, L. and **von Storch, J.-S.** , 2020: A phase-space consideration of changing climate-PDF. Climate Dynamics, 54:2633–2662, https://doi.org/10.1007/s00382-020-05130-8

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81. Gutjahr O., Putrasahan D. A., Lohmann K., **von Storch J.-S.**, Jungclaus J. H., Brüggemann N., Haak H., Stössel A., 2019: Max Planck Institute Earth System Model (MPI-ESM1.2) for High-Resolution Model Intercomparison Project (HighResMIP). Geoscientific Model Development, 12, 3241-3281, doi: 10.5194/gmd-12-3241-2019.

80. Köhler, J., Walter, M., Mertens, C., Stiehler, J., Li, Z., Zhao, Z., **von Storch, J.-S.**, and Rhein, M. 193, 2019: Energy Flux Observations in an Internal Tide Beam in the Eastern North Atlantic. Journal of Geophysical Research: Oceans, 5747– 5764. 124. https://doi.org/10.1029/2019JC015156

79. Putrasahan, D.A., K. Lohmann, **J.-S. von Storch**, J. Jungclaus, O. Gutjahr, H. Haak, 2919: Surface Flux Drivers for the Slowdown of the Atlantic Meridional Overturning Circulation in a High-Resolution Global Coupled Climate Model. Journal of Advances in Modeling Earth Systems. https://doi.org/10.1029/2018MS001447.

78. **von Storch, Jin-Song**, 2019: Energetics of the climate system. Oxford Research Encyclopedias. Climate Science. Subject: Climate Systems and Climate Dynamics: Theoretical Foundations. DOI:10.1093/acrefore/9780190228620.013.88

77. Lüschow, V., **von Storch, J.-S.** and Marotzke, J., 2019: Diagnosing the Influence of Mesoscale Eddy Fluxes on the Deep Western Boundary Current in the 1/10° STORM / NCEP Simulation. J. Phys. Oceanogr. 49. 751-764. https://doi.org/10.1175/JPO-D-18-0103.1

76. **von Storch, J.-S.**, G. Badin and M. Oliver, 2019: The interior energy pathway: Inertial gravity wave emission by ocean flows. In Energy transfers in Atmosphere and Ocean (pp.53-85), Carsten Eden and Armin Iske, Eds., Springer, Cham.

75. Mertens, C., J. Köhler, M. Walter, **J.-S. von Storch** and M. Rhein, 2019: Observations and models of low mode internal waves in the ocean. In Energy transfers in Atmosphere and Ocean (pp.127-143), Carsten Eden and Armin Iske, Eds., Springer, Cham.

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72. Tian, Fangxing, **J.-S. von Storch** and E. Hertwig, 2018: Impact of SST diurnal cycle on ENSO asymmetry. Clim Dyn. https://doi.org/10.1007/s00382-018-4271-7.

71. Stössel, A., **von Storch, J.-S.**, Notz, D., Haak, H. and Gerdes, R., 2018: High-frequency and meso-scale winter sea ice variability in the Southern Ocean in a high-resolution ocean model. Ocean Dynamics, 68, 347-361.

70. Li, Z., **J.-S. von Storch** and M. Müller, 2017: The K_1 internal tide simulated by a $1/10^\circ$ OGCM. Ocean Modelling, 113, 145-156.

69. **von Storch, J.-S.**, H. Haak, E. Hertwig, I. Fast, 2016: Vertical heat and salt fluxes due to resolved and parameterized meso-scale eddies. Ocean Modelling, 108, 1-19.

68. Tian, F., **J.-S. von Storch**, and E. Hertwig, 2016: Air-sea fluxes in a climate model using hourly coupling between the atmospheric and the oceanic components. Clim. Dyn., DOI 10.1007/s00382-016-3228-y.

67. Haarsma,R.J., M.Roberts, P.L. Vidale, C.A. Senior, A. Bellucci, Q.Bao, P. Chang, S. Corti, N.S. Fučkar, V. Guemas, J. von Hardenberg, W. Hazeleger, C. Kodama, T. Koenigk, L.R.

Leung, J.Lu, J.-J. Luo, J. Mao, M.S. Mizielinski, R. Mizuta, P. Nobre, M. Satoh, E. Scoccimarro, T. Semmler, J. Small, **J.-S. von Storch**, 2016: High resolution model intercomparison project (HighResMIP). Geosci. Model Dev., 9, 4185-4208, doi:10.5194/gmd-9-4185-2016.

66. Berner, J., U. Achatz, L. Batté, L. Bengtsson, A. Cámara, H. M. Christensen, M. Colangeli, D.R.B. Coleman, D. Crommelin, S. Dolaptchiev, C.L.E. Franzke, P. Friederichs, P. Imkeller, H. Järvinen, S. Juricke, V. Kitsios, F. Lott, V. Lucarini, S. Mahajan, T.N. Palmer, C. Penland, M. Sakradzija, **J.-S. von Storch**, A. Weisheimer, M. Weniger, J-I Yano, 2016: Stochastic parameterization: Towards a new view of weather and climate models. BAMS (in press), doi: 10.1175/BAMS-D-15-00268.1

65. Li, Z., **J.-S. von Storch** and M. Müller, 2015: The M2 internal tide simulated by a $1/10^o$ OGCM. J. Phys. Oceanogr., 45, 3119-3135.

64. Rimac, A., **J.-S.** von Storch and C. Eden, 2015: The total energy flux leaving the ocean's mixed layer. J. Phys. Oceanogr. 46, 1885-1900. DOI: 10.1175/JPO-D-15-0115.1.

63. Krismer, T. R., M. A. Giorgetta, **J. S. von Storch**, and I. Fast, 2015: The influence of the spectral truncation on the simulation of waves in the tropical stratosphere, J. Atmos. Sci., 72, 3819-3828. doi:10.1175/JAS-D-14-0240.1

62. Corti,S., T. Palmer, M. Balmaseda1, A. Weisheimer, S. Drijfhout, N. Dunstone, W. Hazeleger, J. Kröger, H. Pohlmann, D. Smith, **J.-S. von Storch** and B. Wouters, 2015: Impact of initial conditions versus external forcing in decadal climate predictions: A sensitivity experiment. J. Climate, 28, 4454-4470.

61. Niklas Boers, Bodo Bookhagen, José A. Marengo, **Jin-Song von Storch**, Norbert Marwan, Jürgen Kurths, 2015: Extreme rainfall of the South American monsoon system: A dataset comparison using complex networks. J. Climate, 28, 1031-1056, DOI:10.1175/JCLI-D-14-00340.1.

60. Chuanyu Liu, Fan Wang, Xinping Chen **Jin-Song von Storch**, 2014: Interannual variability of the Kuroshio onshore intrusion along the East China Sea shelf break: Effects of the Kuroshio volume transport. Journal of Geographical research: Oceans. DOI: 10.1002/2013JC009653. p6190-6209.

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57. Rimac, A., **J.-S. von Storch**, C. Eden and H. Haak, 2013: The influence of high-resolution wind stress field on the power input to near-inertial motions in the ocean. Geophy. Res. Lett. 40, 1-5, doi:10.1002/grl.50929.

56. Exarchou, E., **J.-S. von Storch** and J.H. Jungclaus, 2013: Sensitivity of transient climate change to tidal mixing: Southern Ocean heat uptake in climate change experiments performed with MPI ECHAM/MPIOM. Clim. Dyn., DOI:10.1007/s00382-013-1776-y.

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51. Li, C., **J.-S. von Storch**, J. Marotzke, 2012: Deep-ocean heat uptake and equilibrium climate response. Clim Dyn. DOI 10.1007/s00382-012-1350-z.

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14. **von Storch, J.-S., 1998**: Statistik und Konzepte der Klimavariabilität. Habilitationsschrift, Universität Hamburg.

13. **von Storch, J.-S.**, Kharin, V., Cubasch, U., Hegerl, G.C., Schriever, D., von Storch, H., Zorita, E., 1997: A description of a 1260-year control integration with the coupled ECHAM1/LSG general circulation model. J. Climate, 10, 1526-1544.

12. von Storch, H., G. Bürger, R. Schnur and **J.-S. von Storch**, 1995: Principal Oscillation Patterns. J. Climate, 8, 377-400.

11. Tahvonen O., H. von Storch and **J.-S. von Storch**, 1995: Atmospheric CO2 accumulation and problems in dynamically efficient emission abatement. G. Boero and Z.A. Silberston (ed.): Environmental Economics. St. Martin's Press ISBN 0-312-12579-8, 234-265

10. **von Storch, J.-S.**, 1995: Multivariate statistical modeling: POP-Model as a first order approximation. - in H. von Storch and A. Navarra (Eds): Analysis of climate variability: Applications of statistical techniques, Springer Verlag, 281-298, (ISBN 3-540-58918-X). 2nd edition, 1999

9. **von Storch, J.-S.**, 1994: Interdecadal variability in a global coupled model. - Tellus, 46A, 419-432.

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6. **Xu, J.-S.**, 1993: The joint modes of the coupled atmosphere-ocean system observed from 1967 to 1986. J. Climate, 6, 816-838.

5. **Xu, J.-S.**, 1992: On the relationship between the stratospheric quasi-biennial oscillation and the tropospheric Southern Oscillation. J. Atmos. Sci., 49, 725-734.

4. **Xu,J.-S.**, 1990: Analysis and Prediction of El Niño Southern Oscillation Phenomenon Using Principal Oscillation Pattern Analysis. PhD thesis, University Hamburg

3. **Xu, J.-S.** and H. von Storch, 1990: Predicting the state of the Southern Oscillation using Principal Oscillation Pattern Analysis. J. Climate, 3, 1316-1329.

2. von Storch, H. and **J.-S. Xu** 1990: Principal Oscillation Pattern analysis of the 30- to 60-day oscillation in the tropical troposphere. Clim. Dyn., 4, 175-190.

1. **Xu, J.-S., H. von Storch** and H. van Loon, 1990: The performance of four spectral GCMs in the Southern Hemisphere: The January and July Climatology and the semiannual wave. J. Climate, 3, 53-70.

Book

- Imkeller, P. and J.-S. von Storch, 2001: Proceedings of the workshop on stochastic climate models. Birkhäuser Verlag (ISBN 3-7643-6520).

Other publications

18. Reitz, T. and J.-S. von Storch, 2017: Oceanic internal waves internally generated in a 0.1^o OGCM. In Research Activities in Atmospheric and Oceanic Modelling, WGNE Blue Book.

17. von Storch, J.-S., 2014: Comment on 'Oceanic mass transport by mesoscale eddies' by Zhengguang Zhang, Wei Wang and Bo Qiu, Science 345, 322; DOI:10.1126/science.1252418: http://comments.sciencemag.org/content/10.1126/science.1252418

16. Masumoto, Y., H. Sasaki, and J.S. von Storch, 2010: Editorial to OFES special issue of Ocean Dynamics. Ocean Dynamics, 60:631-632.

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14. Stenzel, Oliver ans J-S von Storch, 2002: Modelling of Atmospheric Angular Momentum using a simple AGCM. Ritchie (Ed.): Research activity in atmospheric and oceanic modeling. Rep. No. 32. WMO/ICSU/IOC Joint Scientific Committee for the World Climate Research Programme. WMO Commission for Atmospheric Sciences.

13. Montavez, J.P. and J.-S. von Storch, 2000: An empirical model of atmospheric dynamics. Ritchie (Ed.): Research activity in atmospheric and oceanic modeling. WMO/ICSU/IOC Joint Scientific Committee for the World Climate Research Programme. WMO Commission for Atmospheric Sciences.

12. von Storch, J.-S., and P. Müller, 1998: Decadal variability in millennium integrations with coupled atmosphere-ocean general circulation models. In Holloway, G., P. Müller and D. Henderson (Eds): Biotic impacts of extratropical climate variability in the Pacific. Proceedings 'Aha Huliko'a Hawaiian Winter Workshop, University of Hawaii at Manoa, January 25-29, 1998; 37-50

11. J.-S. von Storch, 1998: Spectral features of variability of deep water masses. In Staniforth (Ed): "Research activities in atmospheric and oceanic modeling". Report No. 27. WMO Weather Prediction Research Programmes and WMO/ICSU/IOC World Climate Research Programme.

10. von Storch, J.-S. and E. Manzini, 1997: On the ability of a general circulation model to simulate two large-scale variations in the Southern Hemisphere. - in R.A. Madden, E.C. Stephens, J.W. Hurrell, G.N. Kiladis, G.A. Meehl and D.J. Shea (Eds): Harry van Loon Symposium, Studies in Climate II. NCAR/TN-433+PROC.

9. Kharin , V., and J.-S. von Storch, 1995: Analysis of variability in a 1260-year integration of a coupled atmosphere-ocean general circulation model. In Report No. 26, Center for Ocean-Land-Atmosphere Studies. 4041 Power Mill Road., Suite 302, Calverton, MD 20705.

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5. von Storch, H., G. Bürger; R. Schnur; J.-S. Xu, 1991: POP art. - M. Latif (ed.): Strategies for Future Climate Research, Max Planck Institut für Meteorologie, Hamburg, 109- 136

4. Xu, J.-S.; U. Mikolajewicz; H. von Storch, 1989: Die Halbjahreswelle im Luftdruck auf der Südhalbkugel: Beobachtung und Simulation. - promet 1/2, 1989 42 -47.

3. Xu, J.S. and H. von Storch, 1989: Prediction of extremes of the Southern Oscillation with POP analysis. - Proc. 4IMSC, Rotorua, 102-109

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1. von Storch,H. and J.-S. Xu, 1987: Southern Hemisphere: Intercomparison with observed sea level pressure. - Climate simulations with the ECMWF T21-model in Hamburg. - G. Fischer (ed.): Large Scale Atmospheric Modelling Report 1, 57-74

Postdocorial Supervision

Fraser William Goldsworth (EU-project EERIE); Jürgen Kröger (BMBF-project MiKlip, EERIE); Florian Schütte (JPI-project EUREC^{4}A-OA); Veit Lüschow (TRR 181); Zhuhua Li (TRR 181); Dian Putrasahan (EU-project PRIMAVERA, EERIE); Oliver Bothe (CLiSAP); Eileen Hertwig (CLiSAP); Hongmei Li (CliSAP)

Doctorial supervision (as principal supervisor)

14. Zoi Kourkouraidou, since February 2022
13. John Seebandeke, since May 2020
12. Veit Lüschow, 2020: The deep western boundary current in an eddying ocean
11. Thomas Reitz, 2017-2019 (interrupted April 2019)
10. Fangxian Tian, 2016: Effects of coupling frequency on climate simulated by a coupled AO-GCM
9. Zhuhua Li, 2016: Internal tides simulated by a 1/10° OGCM
8. Antonija Rimac, 2014: The role of wind insuced near-inertial waves on the energetics of the ocean
7. Eleftheria Exarchou, 2012: Tidal mixing and large-scale circulation
6. Daniel Hernandez Decker, 2010: Warming up the atmosphere's heat engine: atmospheric energetics with higher greenhouse gas concentrations
5. Rita Seiffert, 2008: Impact of small-scale fluctuations on climate sensitivity and its stochastic analysis
4. Balan Sarojini Beena, 2006: Effect of daily surface flux anomalies on the time-mean oceanic circulation
3. Juan Pedro Montavez, interrupted after 2 years and completed later in Spain
2. Oliver Joachim Stenzel, 2004: Dynamische und thermodynamische Einflüsse auf den Drehumpuls der Atmosphäre und dessesn Auswirkung auf die allgemeine Zirkulation
1. Martina Manuela Junge, 1998: Stochastisch angeregte großräumige Variationen der windgetriebenen Zirkulation

Doctorial supervision (as co-supervisor)

Chengcheng Yang (CSC student), November 2022-; Heves Pilatin (TRR 181), 2022-; Manita Chouksey, 2018: "Disentangling gravity waves from balanced flow"; Chao Li, 2012: "Long-term stability and adjustment toward equilibrium in a future warm climate"

Master supervision

5. Lucas Reimann, 2018: The evolution of climate under an increasing atmospheric CO_2-concentration – a case study focusing on the atmospheric general circulation based on a grand ensemble
4. Tobias Haufschild, 2015: Effect of increasing horizontal and vertical resolution on atmospheric blocking with focus on the impact of small-scale phenomena in ECHAM-6
3. Oliver Krüger, 2009: A simple empirical model for decadal climate prediction
2. Florian Rauser, 2007: Construction of a low-dimensional model from a general circulation model
1. Muhammad-Kassiem Jacobs (Diplomarbeit), 1992: Untersuchung der Einflusses der stratosphärischen quasi-biennial oscillation mit Hilfe der POP-Analyse und der assoziierten Korrelationsmuster auf verschiedene meteorologische Variablen

Supervising visiting students

Beth McDonagh, PhD student from CMCC, Bologna, 01/23-03/23; Léo Maumey, master student, CentraleSupélec, Gif-Sur-Yvette, 03/23-08/23

Undergraduate supervision (as principal supervisor) Lucas Reimann (Bachelor), 2015,"Temperal evolution of propability density functions: a case study of the 2m temperature obtained from a 100-member ensemble with MPI-ESM"

Courses

Statistics	1 SS	regularly in WS since 2003	Uni Hamburg
Exercise on statistics	1SS	regularly in WS	Uni Hamburg
Air-sea coupling and air-sea interactions	Block	December 2021	TRR 181 Course on Fundamentals of Meteorology Uni Hamburg
Statistical tools in modeling: Spectral analysis	Block		IMPRS
Statistical tools in modeling: Hypothesis testing	Block		IMPRS
The role of conceptual models (theory) in building knowledge (Diploma student-doctoral seminar III)	2SS	SS 2005 SS 2006	Uni Hamburg
The role of quasi-realistic models in generating knowledge (Diploma student-doctoral seminar II)	2 SS	WS 05/06 WS06/07	Uni Hamburg
Possibilities and limits of statistical methods (Diploma student-doctoral seminar I)	2 SS	WS 2004	Uni Hamburg
Climate physics	2 SS	WS 2000/01	Uni Hamburg
Exercise on theoretical meteorology II	2 SS	SS 2000 SS 2001 SS 2002 SS 2003 WS 03/04	Uni Hamburg
Exercise on theoretical meteorology I	2 SS	WS 01/02 WS 02/03	Uni Hamburg
Stochastic climate models	1 SS Block Block	WS 1998/1999 2000 2003	Uni Hamburg Uni Utrecht SMHI, Norrköping
Statistical dynamical linear methods for describing atmospheric variability	1 SS	SS 1998	Uni Hamburg

Selected engagement, academic self-governance and services

PI in EUREC^{4}A-OA,	a JPI Ocean Climate International Research Project, 2020-2023
PI in EERIE	a Horizon Europe project, 2023-2026
Project chair	in Cluster of Excellence "Climate, Climatic Change, and Society" (CLICCS), 2020-2025.
Mentor	Viadrina Mentoringprogramm of Europa-Universität Viadrina, 2021-2022.
since 2017	Member of the board TRR181 (Vorstand)
2023 -	Member of the EERIE governing board