



Prof.

Stefan Rahmstorf, PhD

Head of Research Department 1: Earth System Analysis

Professor of the Physics of the Oceans at the University of Potsdam

Research profile

Stefan Rahmstorf is an expert in ocean circulation, sea level, paleoclimate, extreme weather events and Earth system modelling.

Professional appointments

Since 2005	Head of Research Department 1 Earth System Analysis (RD1) at PIK
Since 2000	Full Professor of the Physics of the Oceans, University of Potsdam
Since 1996	Research scientist at PIK
1991-1995	Research scientist at the Kiel Oceanographic Institute
1991	Post-doctoral scientist at the New Zealand Oceanographic Institute, Wellington (New Zealand)

Education

1998	Habilitation at Kiel University with a postdoctoral thesis on the Stability of the Atlantic thermohaline circulation
1987-1990	PhD (Doctor of Philosophy) at Victoria University and the New Zealand Oceanographic Institute, Wellington (New Zealand)
1986-1987	Master's Thesis at University of Konstanz on general relativistic hydrodynamics with the title Stability of Density Fluctuations in an Expanding Universe in Harmonic Coordinates (diploma in physics with highest marks)
1983-1986	Physics studies (diploma) at Constance University
1982-1983	Post-graduate study in oceanography, University College of North Wales / Bangor University (Wales)
1980-1982	Physics studies (intermediate diploma) at Ulm and Constance universities

Top five publications

- › Caesar, L., S. Rahmstorf, A. Robinson, G. Feulner and V. Saba (2018): Observed fingerprint of a weakening Atlantic Ocean overturning circulation. *Nature* 556, pp. 191–196.

- › Mann, M. E., S. Rahmstorf, K. Kornhuber, B. A. Steinman, S. K. Miller, S. Petri and D. Coumou (2018): Projected changes in persistent extreme summer weather events: The role of quasi-resonant amplification. *Science Advances* 4(10), eaat3272.
- › Rahmstorf, S. and D. Coumou (2011): Increase of extreme events in a warming world. *Proceedings of the National Academy of Science of the USA*, 5pp. doi:10.1073/pnas.1101766108.
- › Rahmstorf, S. (2007): A semi-empirical approach to projecting future sea-level rise. *Science*, 315, pp. 368-370.
- › Rahmstorf, S. (2002): Ocean circulation and climate during the past 120,000 years. *Nature* 419, pp. 207-214.

H-index		Citations	
Scopus	51	Total	15,425
Google-Scholar	71	Citations/Paper	111.0

Source: Scopus 28.5.2020

Major engagements and other professional roles (selection)

- › Strategic board member of the Office for Climate Education (OCE) (since 2018)
- › Scientific Advisory Board of National Geographic Germany (since 2012)
- › Editorial Board of the open-access-journal Environmental Research Letters (since 2006)
- › Member of the German Advisory Council on Global Change (WBGU, 2004-2013)
- › NOAA panel on Abrupt Climate Change (2001-2008)
- › Lead author of AR4 (2004-2007) and contributing author to TAR (1999-2001) for the Intergovernmental Panel on Climate Change (IPCC)
- › Sustainability Council of the state government of Baden-Württemberg (2002-2005)

Three recent highlights

- › Exceeded 65,000 Twitter followers
- › Organized plenary session Arctic Tipping Points, Arctic Circle Assembly in Reykjavik (Iceland, 2019)
- › Visiting professor at the University of New South Wales (Wales, 2015-2016)

Teaching and supervision (selection)

- › Ocean Circulation Theory and Climate in Earth History courses at the University of Potsdam (since 2000)
- › Supervision of twelve successful PhD students of which four have won prizes

Awards (selection)

- › ZEIT Wissen Preis “Mut zur Nachhaltigkeit” (2019, €10,000)
- › Climate Communication Prize of the American Geophysical Union (2017, USA, \$20,000)
- › Fellow of the American Geophysical Union (2010)
- › Honorary Fellow of the University of Wales / Bangor University (Wales, 2007)
- › McDonnell Foundation Centennial Fellowship Award (1 million \$)
- › Royal Society Young Scientists Award (New Zealand, 1990)
- › Doctoral Fellowship by the German Academic Scholarship Foundation (*Studienstiftung des deutschen Volkes*) for PhD studies in New Zealand (1987)