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Bio of Thomas Stocker, University of Bern, Switzerland

Thomas Stocker was born in Zürich and obtained a PhD in Natural Sciences of ETH Zürich in 1987. He held research positions at University College London, McGill University (Montreal), Columbia University (New York) and University of Hawai'i (Honolulu). Since 1993 he is Professor of Climate and Environmental Physics at the University of Bern and President of the Oeschger Centre for Climate Research.

His research encompasses the development of climate models of intermediate complexity, modelling past and future climate change, in particular abrupt climate change and its effects on the ocean. In 1990, Thomas Stocker, together with the late Daniel Wright, closed the gap between general circulation models of the climate system and simple box models suitable for simulations on geological time scales. This has resulted in a new class of models: coupled ocean-atmosphere climate model of intermediate complexity which are now used by many researchers worldwide. These models have been key to understand ice core and marine sediment records covering the Late Pleistocene.

At the University of Bern, Thomas Stocker and his team continued the development of analytical techniques to extract information from polar ice cores, initiated by the polar pioneers Hans Oeschger and Bernhard Stauffer at the University of Bern. Thomas Stocker and his team were leading the greenhouse gas measurements on ice samples from the 3270 m long ice core from Dome Concordia Station which was obtained in the European Project of Ice Coring in Antarctica. This has resulted in the definitive CO₂ and CH₄ records of the past 800,000 years, still a world record. Thomas Stocker and colleagues have also lead the effort for the next generation of deep coring projects funded by the European Commission, with Switzerland making an unprecedented financial contribution to support the logistic operations in Antarctica for the current project "Beyond EPICA: Oldest Ice". In the field he participated in the set-up of the drilling site at Little Dome C, 32 km from Dome Concordia, in 2019/2020 and the firm drilling and casing of 130 meters in the 2021/2022 season.

Thomas Stocker has authored or co-authored more than 260 peer-reviewed papers in the area of climate dynamics and paleoclimate modeling and reconstruction. After more than 10 years of service in the UN Intergovernmental Panel on Climate Change (IPCC) he was elected Co-Chair of Working Group I of the IPCC for the period 2008 to 2015. The comprehensive assessment report *Climate Change 2013: The Physical Science Basis* was approved by the governments on September 27, 2013. This report provided the scientific foundation of the Paris Agreement.

Thomas Stocker was awarded a Dr. Honoris Causa of the University of Versailles in 2006 and of ETH Zürich in 2016. He received the Hans Oeschger Medal of the European Geosciences Union in 2009 and the Prix Belgica in 2020. Thomas Stocker is a Fellow of the American Geophysical Union, a Foreign Member of the Accademia Nazionale dei Lincei, a Foreign Honorary Member of the American Association of Arts and Sciences and a Member of the German Academy of Sciences Leopoldina. In 2017 he was the recipient of the Swiss Science Prize Marcel Benoist.

stocker@climate.unibe.ch
www.climate.unibe.ch/stocker