

Prof. Dr. Benjamin D. Stocker

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Education

- Nov. 2009- Dec. 2013** **PhD Climate Sciences at Climate- and Environmental Physics**, University of Bern,
Climate Forcings and Feedbacks from the Terrestrial Biosphere – From Greenhouse-Gas Emissions to Anthropogenic Land Use Change
Supervised by Prof. Fortunat Joos, date obtained: 13. Dec. 2013
- Sep. 2007- Oct. 2009** **MSc Climate Sciences at Climate- and Environmental Physics**, University of Bern,
Transient Simulations of Land Use Change in the Holocene – Separating the Human Impact from Natural Drivers of the Carbon Cycle
Supervised by Prof. Fortunat Joos, date obtained: 16. Nov. 2009
- Jun. 2006** **Undergraduate in Geography** (120 ECTS) with a Minor (60 ECTS) in **Physics**, and a complementary (15 ECTS) in **General Ecology**, University of Bern

Employment

- Since Aug. 2022** **Assistant Professor** (Tenure Track) for Geocomputation and Earth Observation, Institute of Geography, University of Bern, Switzerland
- Sep. 2019 - Jul. 2022** **Assistant Professor** (non-Tenure Track) for Computational Ecosystem Science, Department for Environmental Systems Science, ETH Zürich, and WSL Birmensdorf, Switzerland
- Apr. 2019- Aug. 2019** **Visiting Scholar** with Prof. Robert Jackson, Department of Earth System Science, Stanford University, USA
- Mar. 2017- Feb. 2019** **Marie Skłodowska-Curie Postdoctoral Research Fellow** with Prof. Josep Peñuelas, Ecological and Forestry Applications Research Centre (CREAF), Barcelona, Spain
- Sep. 2016- Feb. 2017** **Postdoctoral Researcher** with Prof. S. Seneviratne, Department for Environmental Systems Science, ETH Zürich, Switzerland
- Mar. 2014- Aug. 2016** **Postdoctoral Research Fellow**, with Prof. I. C. Prentice, Department of Life Sciences, Imperial College London, U.K.
- Jan.-Feb. 2014** **Postdoctoral Researcher** with Prof. F. Joos, Climate- and Environmental Physics, University of Bern.

Approved research projects (Chronological order)

- **[Co-applicant] SNF Agora**, *Biotinkering for Youth - Robotics and digital learning in plant science engagement*; Swiss National Science Foundation, 2.5 years, Apr. 2021 - Sep. 2023, 200 kCHF (approx. 182 kEUR). This funds outreach activities on robotics and digital learning for plant sciences which I co-create with co-applicants.
- **[Co-PI] Virtual Earth System Research Institute**, *LEMONTREE - Land Ecosystem Models based On New Theory, observations, and Experiments*; Schmidt Futures, 5 years, Jan. 2021 - Dec. 2025, 10 mio. US\$ (approx. 9 mio. CHF). This funds a postdoc (3 yr) and a PhD (3 yr) in my group.
- **[co-PI] WSL Internal Innovative Project**, *Increasing cold stress on photosynthesis in a warming world?* Granted Aug. 2019, 60 kCHF (approx. 56 kEUR) [WSL internal project]. This funds a postdoc (Y. Luo), co-supervised by Prof. A. Gessler (WSL) and myself.
- **[PI] SNF Eccellenza Professorial Fellowship**, *MIND - developing next-generation Modelling approaches for simulating processes in the terrestrial biosphere by Including New Data streams and optimality approaches*; Swiss

National Science Foundation, 60 months, Sep. 2020 - Aug. 2024, total 1.8 mio. CHF (approx. 1.6 mio. EUR). This funds my salary, 3 yr postdoc, and two 4-yr PhD in my group.

Supervision and mentoring

- **Current PhD:** Ananda Kurth (starting Feb. 2025)
- **Current external PhD, co-supervised:** Lara Oxley, Uni. Bern; Samantha Biegel, ETH AI Center; Gabriela Sophia, MPI-BGC Jena, Germany, start in July 2021; Myriam Terristi, MPI-BGC Jena, Germany
- **Current Postdocs:** Laura Marqués, 2019-present; Yousra El-Mejjaouy, 2023-present
- **Current MSc:** Patricia Helpap, Ting Tan
- **Current BSc:** Nils Huber, Anna Grossmann, Timo Trinidad
- **Past PhD:** Yunke Peng, 2020-2023; Francesco Giardina, 2020-2024
- **Past MSc:** Pascal Schneider, 2021-2022; Martina Buck, 2021-2022; Didem Durukan, 2022-2023 (Uni Zürich, IBM Research); Sélène Ledain, 2022-2023 (EPFL Lausanne, IBM Research); Jiarui Wu (ETH Zürich); Nour El-Ajou, 2023-2024; Francesco Grossi, 2024
- **Past BSc:** Patricia Gribi
- **Past MSc, external and co-supervision:** Gioele Piatti, 2021-2022; Fabienne Meier, 2020-2021; Paula Casadei, 2018-2019; Fabian Feissli, 2011
- **Past postdocs:** Di Tian, 2020-2021; Yungpeng Luo, 2021-2023; Koen Hufkens, 2021-2024; Jaideep Joshi, 2022-2024

Teaching

- **Land in the Earth System 1, 2**, lecturer and author of book (UniBe, <https://geco-bern.github.io/les/>)
- **Applied Geodata Data Science 1, 2**, lecturer and author of tutorials (UniBe, <https://geco-bern.github.io/agds/>, https://geco-bern.github.io/agds2_course/)
- **Environmental Systems Data Science**, lecturer and author of tutorials (ETHZ, autumn 2020, 2021, tutorial available at https://stineb.github.io/esds_book/)
- **Global Change Biology**, lecturer, for MSc in Environmental Sciences and MSc in Agronomy, ETH Zürich (spring 2020, 2021, 2022)
- **Data Science Lab**, guest-lecturer, for MSc in Computer Science, ETH Zürich (spring and autumn 2021)

Professional service, panel memberships, and reviewing

- **Associate Editor** for *Biogeosciences*
- **Steering Committee Member** *SwissForestLab*
- **PhD jury member:** Marcos Fernández-Martínez, UAB Barcelona, Spain (Jan. 2016); Wantong Li, Universität Dresden, Germany (Jun. 2023)
- **Reviewer for grant proposals:** ERC Consolidator Grant Call 2018, French National Science Foundation (ANR) AAPG2022, UK NERC Large Grant Scheme 2024, Max Planck Society 2025
- **Guest Editor** for *Biogeosciences* Special Edition “Ecosystem experiments as a window to future carbon, water, and nutrient cycling in terrestrial ecosystems”
- **Completed peer reviews** for journals: *Nature* (5), *Science* (2), *Nature Geoscience* (4), *Nature Clim. Change* (1), *New Phyt.* (5), *Glob. Change Biol.* (5), *Geosci. Mod. Dev.* (5), *Biogeosciences* (10), *J. of Climate* (1), *Earth System Dynamics* (1), *Env. Research Lett.* (1), *Geophys. Research Lett.* (1), *Glob. Biogeochem. Cycles* (1), *Earth and Planetary Science Lett.* (1), *J. of Geophys. Research – Biogeosciences* (1), *Earth's Future* (1), *AGU Advances* (2), *Remote Sens. of the Env.* (1), *Communications Earth & Environment* (1)

Organisation of conferences

- **Conferences and symposia:** Zurich-Basel Plant Science Center Symposium, Dec. 2021; Missing links in drought research, Mar. 2025

- **Workshops:** *Terrestrial nitrogen cycling in Earth system models revisited*, UK, Feb. 2016; *Palaeoclimate experiments to evaluate the impact of LULC on climate and the carbon cycle: a joint co-design workshop of the PAGES LandCover6ka WG and the Palaeoclimate Modelling Intercomparison Project*, Sep. 2018
- **Conference sessions:** EGU 2018, 2019, 2020, 2021, 2022, 2023, 2023, 2024; SIBECOL 2019; PAGES OSM 2017; INQUA 2015

Awards and fellowships

- **[Fellow] Marie Skłodowska-Curie Actions Individual Fellowship**, Mar. 2017-Feb. 2019, project number H2020-MSCA-IF-2015-701329 FIBER, total 158 kEUR (approx. 181 kCHF)
- **[Offered Fellowship] Incoming PEGASUS Fellowship**, granted by the Flemish Science Foundation (FWO), 36 months, July 2016. Not accepted due to acceptance of the MSCA Fellowship (see above).
- **[Fellow] SNF Early Postdoc.Mobility scholarship**, Swiss National Science Foundation, 18 months, Mar. 2015 - Aug. 2016, project number P2BEP2_158964, total 63 kEUR (72 kCHF).
- **Faculty prize** for best Master's thesis at the Physics Institute, University of Bern, obtained Feb. 2010