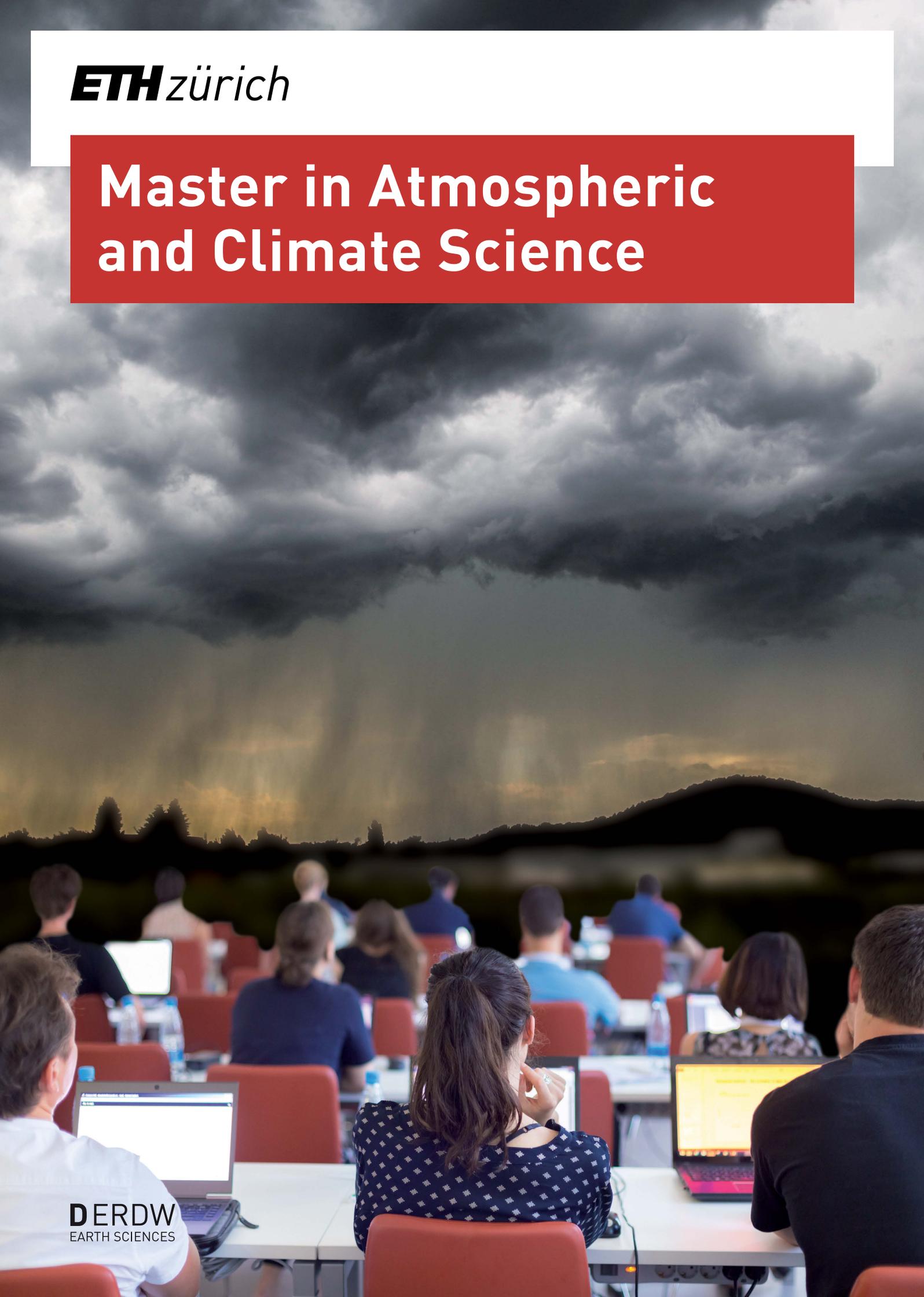


ETH zürich

Master in Atmospheric and Climate Science

DERDW
EARTH SCIENCES



A perfect match

We're looking for you – fascinated by weather phenomena and aiming to understand the atmosphere and climate system. You want to move from reading newspaper articles on climate change and looking at fascinating pictures of tornadoes and hurricanes to investigating and understanding them to become an expert. You would like to gain a quantitative understanding of climate processes and their interactions – ranging from the molecular to the global scale and from short-lived phenomena to changes over millions of years, and you are interested in the broader view of how climate change links to society and policy. You have a bachelor's degree in science and a solid scientific background in mathematics, physics, chemistry and biology. Interested? Consider applying for the → Master in Atmospheric and Climate Science.



Heini Wernli
Professor for Atmospheric Dynamics

“In our lecture courses students learn about the variability of weather systems, their prediction with numerical models and the physical fundamentals that govern their dynamics.”



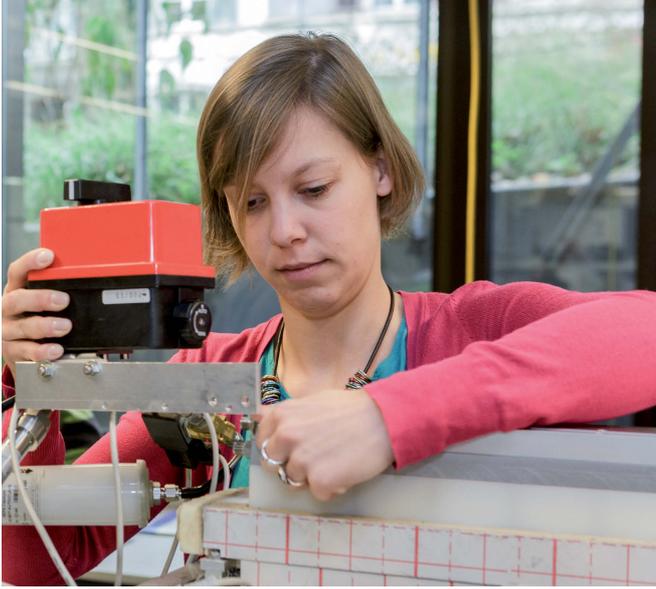
Daniela Schmuki
Meteorologist, SRF Meteo

“As a meteorologist I put into practice the atmospheric science that I learned at ETH. I love the directness of my job: at the end of my shift I find out immediately whether I got things right.”

We offer

We offer a 3-semester programme bringing together a group of outstanding students with world leading scientists in the field of atmospheric and climate science. You will be part of an international group of students with diverse backgrounds but sharing a common passion for atmospheric and climate science.

You will gain a quantitative understanding of atmospheric dynamics, climate processes and feedbacks, biogeochemical cycles, and paleoclimatology. You will receive in-depth training in numerical modelling of weather and climate, have the opportunity to work in the atmospheric chemistry and physics lab, participate in field courses and discuss the current weather in a weekly weather discussion.



Your career

We educate outstanding young scientists for careers in academia, public administration and the private sector. The range of positions of our graduates is very diverse and ranges from experts in the emerging field of renewable energy, to risk modelers in the insurance business. Graduates of our MSc programme hold leading positions in companies such as energy providers, climate and weather services, in the reinsurance and financial sector, or in media, business and policy consulting. Others work as statisticians, programmers, consultants, project managers or teachers in a wide variety of positions in the private sector, public administration and academia. Finally, many of our graduates successfully pursue an academic career and rank among the world-leading scientists in atmospheric and climate science.

“Our students learn about the latest advancements in climate research, are able to critically assess climate and weather science, becoming experts in a quickly developing field.”

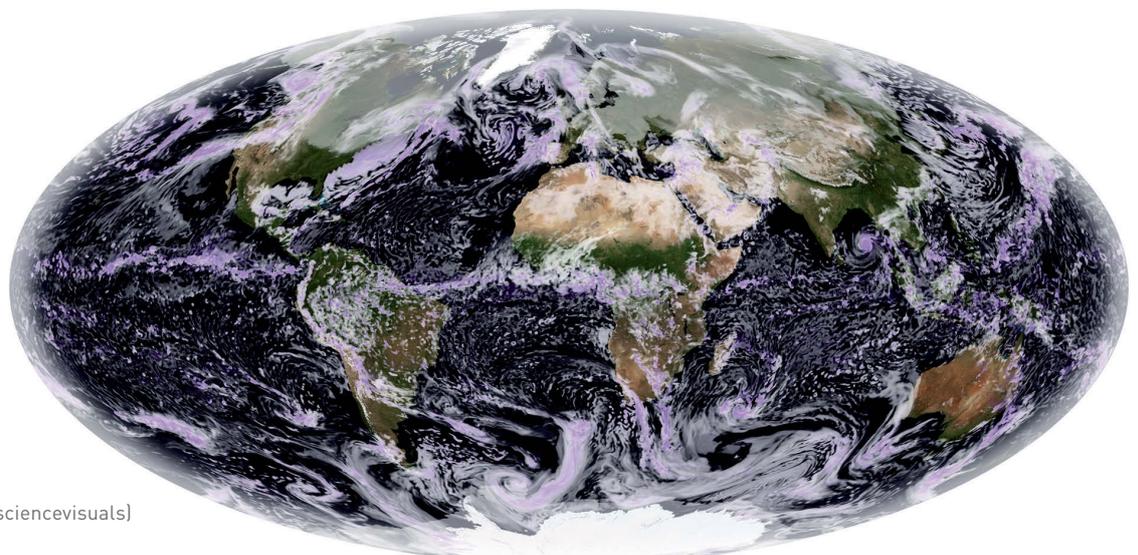


Sonia Seneviratne
Professor for Land-Climate Dynamics

“My time at ETH was a profound learning experience, academic and otherwise. It greatly changed my outlook on life, and is one of the main reasons I chose to go into research.”



Pushkar Kopparla
PhD Student, California Institute of Technology,
Caltech, Pasadena



ETH / NASA
(vimeo.com/climatesciencevisuals)

Programme structure

The Master in Atmospheric and Climate Science is a 1½-year program that combines theory, tutorials and labs, seminars and field courses, adding up to 90 ECTS credits. The Master in Atmospheric and Climate Science provides you with flexibility to tailor your own profile.

Core courses (40 ECTS)

Module courses (24 ECTS)

You choose lectures from three of the five following modules:

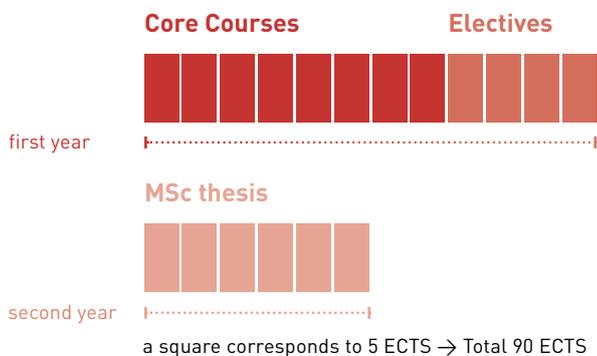
- Weather systems and atmospheric dynamics
- Climate processes and feedbacks
- Atmospheric composition and cycles
- Climate history and paleoclimatology
- Hydrology and water cycle

Labs, practical courses, field work and seminars (16 ECTS)

You gain professional expertise in weekly weather discussions, atmospheric chemistry labs, atmospheric physics labs or a climatological and hydrological field course. You are trained in scientific writing, presentation and communication skills and project management in seminars. You meet international scientists and professionals from prospective work fields.

Electives (20 ECTS)

You either delve into specialized courses in Atmosphere and Climate or broaden your profile by taking e.g. a minor in Sustainable Energy Use, Physical Glaciology, Environmental, Resource and Food Economics. You are free to choose from basically any MSc course offered at ETH Zurich.



“Climate change is not solved by just predicting how much rain will fall in the future. In our programme you also get exposed to quantification of climate risks, how science feeds into UN IPCC reports, and into decisions on mitigation and adaptation.”



Reto Knutti
Professor for Climate Physics

“The studies in atmospheric sciences guided me from wind turbines and energy industry to today’s position at the interdisciplinary interface of research, consulting and practice – quite the thing!”



Christian Vogler
Project Manager Energy & Climate,
Econcept AG





Niki Gruber
Professor for Environmental Physics

“The global carbon cycle and climate are closely linked to each other. In this programme, you will learn about how processes in the ocean and land control the atmospheric CO₂ and thus climate, and in turn, how climate affects these two reservoirs.”



Pamela Köllner Heck
PhD, Senior Scientific Officer,
Swiss Federal Office for the Environment, BAFU

“Studying climate sciences offered me the possibility to turn my passion for nature into my profession. Thanks to the knowledge I gained, I am able now to find solutions to our actual environmental challenges.”

Master’s thesis (30 ECTS)

During your Master’s thesis you are fully integrated in an international research team and work on your 6-month research project with strong support from your supervisors. You have access to leading-edge supercomputing and lab infrastructure and get a flavor of the vibrant work environment of research.

Exchange with University of Bern

The Master in Atmospheric and Climate Science has a vital exchange with the University of Bern and their graduate school at Oeschger Centre for Climate Change Research. We encourage and support students to take complementary courses at the University of Bern.



Your mentors

Your lecturers, teachers and supervisors rank among the world-leading scientists in atmospheric and climate research, lead international research programs and author assessment reports of the Intergovernmental Panel on Climate Change. Find a list of your future mentors at www.usys.ethz.ch/en/people/professors



Studying at ETH Zurich

Study programmes at ETH Zurich are intensive and demanding. Nevertheless, students find time to enjoy an active student life.

Get involved

Many students are involved in the Geosciences Association (www.erfa.ethz.ch) or the Union of Students at ETH (VSETH) (www.vseth.ethz.ch). As a member, you can contribute actively to the development of academic life.

Balancing your studies

The Zurich Academic Sport Association (ASVZ), one of the biggest sport associations in Europe, provides ETH students with a choice of more than 70 different sports, taught by 600 instructors. Students registered for academic studies are entitled to participate in the vast majority of these: see www.asvz.ch



Living in Zurich

Zurich is a fascinating city, offering a high quality of life and diverse recreational and cultural activities. Its proximity to lakes and mountains makes it a popular spot for water sports and alpine leisure activities.

Zurich is beautiful, but expensive. The approximate monthly fixed costs for a single person are at least CHF 1790.00. Personal expenses such as clothes, telephone calls, leisure activities etc. are not included in this amount. You may well spend CHF 2000.00 a month without living in the lap of luxury. This means probable costs of at least CHF 24,000.00 per year.

Accommodation

ETH Zurich offers student accommodation facilities: see www.livingscience.ch.





It is possible to find accommodation (rooms, studio apartments, etc) by contacting one of the institutions working with ETH Zurich and the University of Zurich.

- 1 ETH Zurich provides a limited number of furnished single rooms for international Master's (MSc) and exchange students. These rooms can only be rented for one or two semesters: International Student Support, international@sts.ethz.ch
- 2 The Housing Office of the University of Zurich and ETH Zurich provides an index on privately run student residences in the "Wohnbulletin": see www.wohnen.ethz.ch.
- 3 The Student Housing Cooperative (Woko) rents out 2000 furnished rooms in student residences, student houses or flats throughout the city: see www.woko.ch.
- 4 On the following websites you can check out other student accommodation ads and create your own room request for free: www.marktplatz.ethz.ch, www.wgzimmer.ch.

Further information:

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 Sonneggstrasse 5, CH-8092 Zurich
 Phone +41 44 632 64 83
studies@erdw.ethz.ch
www.erdw.ethz.ch

ETH Zurich:

International Student Support
 HG F 22.3, Raemistrasse 101, 8092 Zurich
 Phone +41 44 632 20 95
international@sts.ethz.ch, www.ethz.ch

Admissions Office:
master@ethz.ch

Financial Aid Office (Scholarship):
studienfinanzierung@sts.ethz.ch

Zurich Tourist Office:
www.zuerich.com

Contact

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