METEOXCHANGE

A global meet-up of atmospheric scientists

ECS Conference

12th to 14th April 2023

Student & Early Career Scientists Conference in Atmospheric Sciences

Programme and Abstract Book

You can find all further information and updates on

https://www.meteoxchange.de/meteomeet/ecs-conference/

If you don't want to miss any news, sign up for our mailing list !

If you have any questions please contact info@meteoxchange.de

MeteoXchange ECS Conference

Wednesday, 12th April

Workshop - Graphical Abstracts
08:50 - 09:00 UTC   **Registration**
09:00 - 10:30 UTC   **Part 1**
15 min break
10:45 - 13:00 UTC   **Part 2**
1h break
14:00 - 17:00 UTC   **Part 3**

Thursday, 13th April

10:00 - 10:15 UTC   **Opening**
10:15 - 11:30 UTC   **Session 1: Numerical Modelling**
15 min break
11:45 - 12:30 UTC   **Keynote: Career outside academia**
60 min break
13:30 - 14:30 UTC   **Session 2: Extreme Events**
15 min break
14:45 - 15:45 UTC   **Session 3: Applications**
1h 15min break
from 17:00 UTC   **Icebreaker**

Friday, 18th April

10:00 - 11:15 UTC   **Session 4: Climatology,Climate Change**
15 min break
11:30 - 12:30 UTC   **Poster Part I**
60 min break
13:30 - 14:00 UTC   **Poster Part II**
14:00 - 15:00 UTC   **Session 5: Observations & technical Methods**
15 min break
15:15 - 15:45 UTC   **Feedback for Presentations and Poster**
15:45 - 16:00 UTC   **Closing and award ceremony**

MeteoXchange ECS Conference

Wednesday, 12th April - 8:50 - 17:00 UTC

Workshop: Graphical Abstracts
Host: infohackit
Plattform: Zoom

Workshop

08:50 – Registration
09:00 – Welcome and introduction to session technology (Zoom and Miro)
09:15 – Design principles for Science Communication - Lecture on colour, images, typography and composition
10:30 – 15 minute break
10:45 – Introduction to Visual Abstracts - Exploring motivations for designing visual abstracts and different abstract types
11:00 – Image libraries - Where to find icons and images to include in your designs
11:15 – Design session 1: The Ibrahim Abstract - Using design principles to plan and design a simple visual abstract in the style of Andrew Ibrahim in a software of your choice
13:00 – Lunch break
14:00 – Design session 2: The Infographic Abstract - Using design principles to plan and design a more complex infographic style abstract in a software of your choice Breaks can be taken when required.
17.00 – Close

Workshop Content
Participants are asked to bring a paper on which to base their graphical abstract on and be familiar with the content. Participants will need to have some experience in using their chosen software (e.g., PowerPoint, Inkscape, Adobe Illustrator, Affinity Designer).

The workshop will include:
- Principles of good design
- Intro to visual abstracts (what they are, why you need one, how to make one - best practice)
- Resources for abstracts (e.g. where to find icons)
- Building a template for a 3-panel icon based abstract
- Getting creative with an infographic abstract - planning exercise followed by design time

MeteoXchange ECS Conference

Thursday, 13th April - 11:45 - 12:30 UTC

Keynote Session: Career outside academia
Chair: Julian Giles

Anja Rädler (Munich Re)

Anja Rädler has a bachelor's degree in physics plus meteorology from the LMU in Germany. In her master's degree, she specialized in meteorology with a focus on thunderstorms and subsequently wrote a doctoral thesis on "Modeling of convective storm hazard occurrence, taking convective initiation explicitly into account", in which she also studied the impact of climate change on severe convective storms. Meanwhile, Anja is no longer directly involved in research, but works for MunichRe as a convective storm & climate change consultant developing risk models for natural catastrophes.

Natalia Montroull (ASAPP)

Natalia Montroull is a data scientist with a strong passion for solving complex problems using statistics and machine learning. She currently work at ASAPP, a leading tech startup that specializes in creating AI software to enhance customer service. Her background includes a PhD in atmospheric sciences from the University of Buenos Aires (UBA) , which has given her strong analytical skills and a solid foundation in scientific methodology. Prior to joining ASAPP, Natalia worked for five years as a researcher at CONICET, where she investigated the impact of climate change and climate modification by geoengineering of the hydroclimate in La Plata Basin.

Keynotes

MeteoXchange ECS Conference

Thursday, 13th April
10:15 - 11:30 UTC

Session 1: Numerical Modelling
Chair: Julian Giles

10:15 - 10:30 UTC Georgios Papavasileiou - National Observatory of Athens
Synoptic-scale fire weather forecasting in Greece

10:30 - 10:45 UTC Fabian Mockert - Karlsruhe Institute of Technology
Are reliable forecasts beyond the forecast horizon of two weeks possible? An introduction into weather regime forecasts
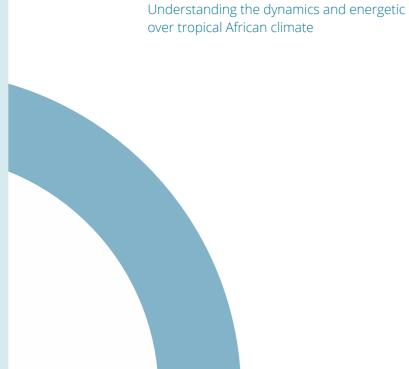
10:45 - 11:00 UTC Aaron Sperschneider - University Bonn
Influence of the Orography of West-Central European Low Mountain Ranges on the Intensity of Deep Moist Convection

11:00 - 11:15 UTC Amber te Winkel - Ludwig Maximilian University
Simulations of Entrainment and Mixing in a Convective Cloud Chamber

11:15 - 11:30 UTC Tomviezibe Cephas Dombo - Indian Institute of Technology, Delhi
Understanding the dynamics and energetic components of ITCZ stagnation over tropical African climate

MeteoXchange ECS Conference

Thursday, 13th April - 13:30 - 14:30 UTC

Session 2: Extreme Events
Chair: Fabian Mockert

13:30 - 13:45 UTC   **Nabeela Sadaf** - Tuebingen University
A multi-scale analysis of an extreme rainfall event over Islamabad, Pakistan

13:45 - 14:00 UTC   **Lisa Degenhardt -** University of Birmingham
How does atmospheric dynamical factors influence the seasonal forecast
performance for winter windstorms over Europe?

14:00 - 14:15 UTC   **Liga Dzedule** - Institute of Agricultural Resources and Economics
Impact of drought and extreme temperatures on spring barley (Hordeum
vulgare) growth and yield: case study of Priekuļi, Latvia, Baltics.

14:15 - 14:30 UTC   **Matías Olmo -** University of Buenos Aires
Future changes in extreme precipitation in Southeastern South America:
regional statistical climate modeling and synoptic circulation patterns

Thursday, 13th April - 14:45 - 15:45 UTC

Session 3: Application
Chair: Lisa Degenhardt

14:45 - 15:00 UTC   **Sofia Ferdini** - Universität Hohenheim
Climate-based identification of suitable cropping areas for giant reed and reed canary
grass on marginal land in central and southern Europe under climate change

15:00 - 15:15 UTC   **Haftu Yemane Hadush -** WUR
Understanding catchment sediment transport dynamics in semi-arid areas:
Implications for integrated watershed management

15:15 - 15:30 UTC   **Lucia M Cappelletti** - CIMA/UBA-CONICET
What do in situ and satellite soil moisture tell us about flood-prone rainfed
agricultural areas?

15:30 - 15:45 UTC   **Christopher Polster -** Johannes Gutenberg-University Mainz
Flottplot: Arrange and Navigate Collections of Images in the Browser

MeteoXchange ECS Conference

Session 4 & 5

Friday, 14th April - 10:00 - 11:15 UTC
Session 4: Climatology, Climate Change
Chair: Sebastian Berghald

10:00 - 10:15 UTC   **Tanu Sharma** - India Meteorological Department
Modulation of teleconnection between tropical Pacific SST and Indian Summer
Monsoon Rainfall: Interannual and Intraseasonal variability

10:15 - 10:30 UTC   **Swagatika Chakra** - Physical Research Laboratory, Ahmedabad
An innovative approach-based identification of multidecadal monsoonal rainfall
trend and trend change points across Central India

10:30 - 10:45 UTC   **Jakov Lozuk** - Independent
Assessment of favourable climatic conditions for downy mildew contamination over
the Croatian territory

10:45 - 11:00 UTC   **Victoire Buffet** - Université Grenoble Alpes
Atmospheric Rivers, Weather Types, changes in the general circulation, and their
influence on the Cook Ice Cap (Kerguelen Island)

11:00 - 11:15 UTC   **Kristofer Hasel** - University of Natural Resources and Life Sciences, Vienna
A statistical approach on rapid estimations of climate change indices by monthly
instead of daily data.

Friday, 14th April - 14:00 - 15:00 UTC

Session 5: Observations & Technical Methods
Chair: Florian Ruff

14:00 - 14:15 UTC   **Claire Gallacher** - Leibniz Institute of Ecological Urban & Regional Development
Thermal comfort mapping for evidence-based urban planning; an interdisciplinary
approach in Dresden, Germany

14:15 - 14:30 UTC   **Nina Maherndl** - University Leipzig
Airborne observations of riming in arctic mixed-phase clouds during HALO-(AC)3

14:30 - 14:45 UTC   **Renuka Prakash Shastri** - University of Bern
High-resolution modeling of historical forest fires in the Canton of Bern

14:45 - 15:00 UTC   **Mingjuan Xie** - Ghent University
Construction of carbon- and water-flux pseudo-observations at Eurasian
meteorological stations using Random Forest Models.

MeteoXchange ECS Conference

Friday, 14th April:
11:30 - 12:30 UTC & 13:30 - 14:00

P01 **Shakir Ahmed** - University of Kassel
A systematic approach for an urban meteorological sensor testing and placement to study urban air temperature variability in Kassel, Germany

P02 **Marijana Boras** - University of Zagreb
Impact of land use/land cover changes on the urban heat load - a case study for the city of Dubrovnik

P03 **Kristóf Erzsébet** - Eötvös Loránd University
Locational stability analysis of the atmospheric teleconnection patterns detected in the historical outputs of general circulation models

P04 **Yurong Gao** - ETH Zurich
Effects of Emissions and Meteorological Conditions on Diurnal Variation of Formaldehyde (HCHO) in the Yangtze River Delta, China

P05 **Dóra Incze** - Eötvös Loránd University (ELTE)
Quantification of cropland water balance components

P06 **Sara Ivasić** - University of Zagreb
Impact of tropical SSTs on the monthly signal over the North Atlantic-European region

P07 **Adrienne Jeske** - JGU Mainz
Simulations of convective tracer transport

P08 **Laura Mack** - University of Oslo
A first principles approach to detect atmospheric fronts

P09 **Daniel O'Brien** - Maynooth University
CrowdLevee: A real-time flood forecasting model utilising crowdsourced data

P10 **Hao Pan** - ETH Zurich
The Effect of Turbulence on the Spectral Width of Cloud Droplets

P11 **Florian Ruff** - Freie Universität Berlin
Climate change signals of 10-year daily extreme precipitation events over Central European river catchments based on CESM Large-Ensemble simulations

P12 **Melina Sebisch** - KIT Karlsruhe Institute of Meteorology and Climate Research
The response of mixed-phase and ice clouds to volcanic eruptions

P13 **Henry Wells** - Loughborough University
Enhanced climatology of large hail in the UK: Radar-derived diurnal cycle and storm mode