

Climate variability across scales – from the butterfly’s wings to the age of the Earth – an online seminar series from Nov 2020 to March 2021 –

Synoptic to sub-seasonal surface climate variability in the Atlantic-European region: the role of weather regimes.
Christian M. Grams

2020-11-26, 16:00 CET

Abstract:

“Variability of weather on time scales of several days to a few weeks is governed by the large-scale circulation that spans continent-size to hemispheric scales. In the midlatitudes, Rossby wave activity along the upper-level midlatitude jet stream as well as associated extratropical cyclones and anticyclones are key players therein. Often this weather activity occurs in preferred quasi-stationary, persistent, and recurrent states, so-called weather regimes. The presentation will give an introduction in the dynamics of the extratropical jet stream and Rossby waves and the concept of weather regimes. It will further highlight how weather regimes affects surface weather based on the example of large-scale heavy precipitation events and variability in wind power generation. Finally, current challenges and opportunities in predicting weather regimes will be discussed.”

The speaker:

Christian Grams leads the research group “Large-scale Dynamics and Predictability” at KIT Karlsruhe since autumn 2017. His research investigates how physical and dynamical processes on synoptic scales affect the large-scale circulation and contribute to chaotic error growth in numerical weather prediction and how the predictability from external forcing on subseasonal time scales can be better exploited.

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Further dates and speakers

1. **Jürg Schmidli** – IAU Frankfurt, Germany “**Variability at sub-daily time scales – from seconds to hours**”. Tuesday **10.11.2020 16:00-17:00 (link to video below)**
2. **Christian Grams** – IMK-TRO/KIT, Germany “**Synoptic to sub-seasonal surface climate variability in the Atlantic-European region: the role of weather regimes.**”. Thursday **26.11.2020 16:00-17:00**
3. **Tine Nilssen** – UIT, Norway “**Decadal variability and the scaling paradigm**”. **3.12.2020 16:00-17:00**
4. **Michel Crucifix** – UC Louvain “**The challenge of centennial climate variability**”. Friday **18.12.2020 11:00-12:00 (title tbc)**
5. **Heather Andres** “**Millennial climate variability and Dansgaard-Oeschger events**” / **14 Jan 2021 16:00-17:00**
6. **Julie Schindlbeck-Belo**, GEOMAR Kiel, Germany – “**The links between volcanism and climate**”/ **20.1.2021 11:00-12:00**
7. **Oliver Friedrich**, GEOW HD, Germany – **Glacial/Interglacial climate variability (10⁵-10⁷ years)** **27.1.2021 11:00-12:00**
8. **Shaun Lovejoy**, McGill University/Canada – **Linking Climate Variability Across Scales – 17.3.2021 16:00-17:00**

All times stated are CET (Berlin). Past lectures are available via the PAGES youtube channel:
https://www.youtube.com/playlist?list=PLSaCdvM4wMLH_QfoKHyc5n4d-0_KBHDL

Registration: The link to the online meeting (Zoom) will be sent a day before the seminar to the first 75 registered participants. For technical questions and registration, please send an email to paleodyn@iup.uni-heidelberg.de with the mail header “CVAS lecture series”. **Contact:** Kira Rehfeld (krehfeld@iup.uni-heidelberg.de)

