

## **NP2.3 Extremes in Geophysical Sciences: Dynamics, Thermodynamics and Impacts**

NP2.3/AS4.20/CL2.37/NH10.11

Convener: Davide Faranda,

Co-Conveners: Carmen Alvarez-Castro, Gabriele Messori, Niklas Boers, Kai Kornhuber, Catrin Ciemer, Francesco Ragone

Chat time: Tuesday, 5 May 2020, 14:00–15:45

Webinar time: Wednesday, 13 May 2020, 15:30–17:30

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**Group 1: 14:00-14:20**

D2815 | EGU2020-3062

Interannual-to-decadal variability of the Kuroshio extension: Analyzing an ensemble of global hindcasts from a Dynamical System viewpoint.

Giusy Fedele, Thierry Penduff, Stefano Pierini, M. Carmen Alvarez-Castro, Alessio Bellucci, and Simona Masina

D2818 | EGU2020-6687

Characterizing large-scale circulation triggering heavy precipitation amounts over the northern French Alps

Antoine Blanc, Juliette Blanchet, and Jean-Dominique Creutin

D2819 | EGU2020-8990

More perceived but not faster evolution of heat stress than temperature extremes in the future

Audrey Brouillet and Sylvie Jousaume

D2820 | EGU2020-6177

The influence of greenhouse gases on the 1930s Dust Bowl heat waves across central United States

Sabine Undorf, Tim Cowan, Gabi Hegerl, Luke Harrington, and Friederike Otto

**Group 2: 14:20-14:40**

D2822 | EGU2020-4441

The substructure of extremely hot summers in the Northern Hemisphere

Matthias Röthlisberger, Michael Sprenger, Emmanouil Flaounas, Urs Beyerle, and Heini Wernli

D2823 | EGU2020-5162

From severe droughts in South America to marine heatwaves in the South Atlantic

Regina Rodrigues, Andrea Taschetto, Alex Sen Gupta, and Gregory Foltz

D2824 | EGU2020-8636

The role of spatial and temporal model resolution in a flood event storyline approach in Western Norway

Nathalie Schaller, Jana Sillmann, Malte Müller, Reindert Haarsma, Wilco Hazeleger, Trine Jahr Hegdahl, Timo Kelder, Gijs van den Oord, Albrecht Weerts, and Kirien Whan

D2828 | EGU2020-1723

A Dynamical Systems Characterisation of Atmospheric Jet Regimes in a Simple Model and Reanalysis Data

Nili Harnik, Gabriele Messori, Erica Madonna, Orly Lachmy, and Davide Faranda

**Group 3: 14:40-15:00**

D2829 | EGU2020-5626

Increasing Strength of Compound Hot-Wet Dynamical Extremes Over the Mediterranean

Paolo De Luca, Gabriele Messori, Davide Faranda, and Dim Coumou

D2830 | EGU2020-7579 | Highlight

Dynamical Systems Theory Sheds New Light on Compound Climate Extremes in Europe and Eastern North America

Flavio Pons, Paolo De Luca, Gabriele Messori, and Davide Faranda

D2832 | EGU2020-5795

Extreme Value Theory for Observations

Theophile caby, Davide Faranda, Sandro Vaienti, and Pascal Yiou

D2835 | EGU2020-7555 | Highlight

Simulating compound weather extremes responsible for critical crop failure with stochastic weather generators

Pascal Yiou, Peter Pfleiderer, Aglaé Jézéquel, Juliette Legrand, Natacha Legrix, Jason Markantonis, and Edoardo Vignotto

**Grup 4: 15:00:15:45 (if uploaded)**

D2839 | EGU2020-13717

Predictability of large scale drivers leading intense Mediterranean cyclones

M. Carmen Alvarez-Castro, Silvio Gualdi, Pascal Yiou, Mathieu Vrac, Robert Vautard, Leone Cavicchia, David Gallego, Pedro Ribera, Cristina Pena-Ortiz, and Davide Faranda

D2814 | EGU2020-21105 | solicited

Cross-timescale interference and predictability of extremes: a chimera?

Ángel G. Muñoz.

D2816 | EGU2020-17899

Greatness from small beginnings: Impact of oceanic mesoscale on weather extremes and large-scale atmospheric circulation in midlatitudes

Joakim Kjellsson, Wonsun Park, Torge Martin, Eric Maisonnave, and Mojib Latif

D2817 | EGU2020-13802

Storylines of the 2018 Northern Hemisphere heat wave at pre-industrial and higher global warming levels

Kathrin Wehrli, Mathias Hauser, and Sonia I. Seneviratne

D2821 | EGU2020-4896 | solicited | Highlight

Storyline approach to extreme event characterization

Theodore Shepherd

D2825 | EGU2020-12772 | Highlight

Causality and information transfer in systems with extreme events

Milan Palus

D2826 | EGU2020-13047

Early warning of the Pacific Decadal Oscillation phase transition using complex network analysis

Zhenghui Lu, Naiming Yuan, Zhuguo Ma, Qing Yang, and Juergen Kurths

D2827 | EGU2020-22377

Robust extreme value analysis: the bulk matching method

Frank Kwasniok

D2831 | EGU2020-5279

Evaluation of CMIP6 simulations of temperature extremes using proper evaluation methods, observations and reanalyses

Thordis Thorarinsdottir, Jana Sillmann, and Marion Haugen

D2834 | EGU2020-6180

The thermal waters of the Portugal Star Geopark - methods for understanding its origin and sustainable exploitation.

Elsa Salzedas

D2838 | EGU2020-12919

Model evaluation for Heatwaves over South Korea in CMIP6 models

Ji-Seon Oh, Maeng-Ki Kim, Dae-Geun Yu, and Jeong Sang

D2840 | EGU2020-19940

Application of an artificial neural network to generate wave projections at southern African coasts

Felix Soltau, Matthias Hirt, Jessica Kelln, Sara Santamaria-Aguilar, Sönke Dangendorf, and Jürgen Jensen

**Virtual meeting: Wednesday, 13 May 2020, 15:30–17:30**

(you can connect starting 15:30 but presentations will start at 16:00)

4:00 PM - 4:45 PM Ángel G. Muñoz

"Cross-timescale interference and predictability of extremes: a chimera?"

4:45 PM - 5:30 PM Theodore Shepherd

"Storyline approach to extreme event characterization"

Each presentation will last 30 minutes and will be followed by 15 minutes questions.

Please join NP2.3 meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/510967661>. You can also dial in using your phone. (For supported devices, tap a one-touch number below to join instantly.)

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