

EGU24-10870, updated on 20 May 2024

<https://doi.org/10.5194/egusphere-egu24-10870>

EGU General Assembly 2024

© Author(s) 2024. This work is distributed under the Creative Commons Attribution 4.0 License.



ClimateMeter: Putting Extreme Weather Phenomena in Climate Perspective

Davide Faranda^{1,2,3} and the The ClimaMeter Team*

¹CNRS-CEA-LSCE-IPSL, Laboratoire de Science du Climat e de l'Environnement, Gif sur Yvette, France

(davide.faranda@lsce.ipsl.fr)

²London Mathematical Laboratory, 8 Margravine Gardens, London, W6 8RH, United Kingdom

³LMD-IPSL, Ecole Polytechnique, Institut Polytechnique de Paris, ENS, PSL Research University, Sorbonne Université, CNRS, Palaiseau, France

*A full list of authors appears at the end of the abstract

Climate change is a global challenge with manifold and widespread consequences, including the intensification and increased frequency of numerous extreme weather phenomena. In response to this pressing issue, we introduce ClimaMeter, a platform designed to assess and contextualize extreme weather phenomena in relation to climate change. The platform provides near-real-time information on the dynamics of extreme events, serving as a resource for researchers, policymakers, and acting as a scientific outreach tool for the general public. ClimaMeter currently analyzes heatwaves, cold spells, heavy precipitation, and windstorms. This presentation sheds light on the methodology, data sources, and analytical techniques that ClimaMeter relies on, offering a comprehensive overview of its scientific foundations. To illustrate ClimaMeter, we present some examples of recent extreme weather events. Additionally, we highlight the role of ClimaMeter in promoting a profound understanding of the complex interactions between climate change and extreme weather phenomena, with the hope of ultimately contributing to informed decision-making and climate resilience. Follow us on X @ClimaMeter and visit www.climameter.org.

The ClimaMeter Team: Davide Faranda, Mathieu Vrac, Pascal Yiou, Robert Vautard, Flavio Pons, Gabriele Messori, Erika Coppola, Tommaso Alberti, Stavros Dafis, Emmanouil Flaounas, Rachel White, Gianmarco Mengaldo, Chen Chen, Chris Lennard, Howard Diamond Suzana Camargo