

Virtual BSC RS/ ES inDust Webinar: Dust impacts on snow

Objectives

Abstract: The lecture will focus on the identification of the different interactions of dust with snow cover. By darkening the snow surface, mineral dust and black carbon deposition enhances snowmelt and triggers numerous feedback. The presentation will review the impacts of Saharan dust on snow cover over the Alps and the Pyrenees. It is based on recent studies and combines field and lab measurements, satellite remote sensing, numerical modeling and citizen science. The presentation will cover the wide impacts of orange snow, from ski resorts, to hydro-power and mountain ecosystems.

Short bio: Marie Dumont defended a PhD in environmental science on snow and ice albedo in 2010. Her main research topics include the optical properties of snow from in situ and remote sensing measurements, snow numerical modelling and data assimilation. In 2019, she was awarded the Arne Richter award from the European Geophysical Union and the Early Career scientist award from the International Union of Geodesy and Geophysics. She is the principal investigator of a French National Research (ANR) project on the impact of Saharan dust and soot on snow evolution (2016-2021) and of the European Research Council (ERC) IVORI project on physical snow modelling. Since 2021, she is the head of the snow study center (CNRM/ Météo-France – CNRS) in Grenoble, France.

The webinar is organized by the WMO Barcelona Dust Regional Center, as a continuation of the inDust webinar series.

The webinar will be recorded and available on the inDust and WMO Barcelona Dust Regional Center websites after some days.

Speakers

Speaker: Marie Dumont (UMR CNRS & Météo-France, France)

Host: Sara Basart, BSC Post Doc Researcher, Atmospheric Composition Group - Earth Sciences
Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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