“The Antarctic in the climate system: evolution of the atmosphere-ocean-ice coupling from last to next century.”

Cécile AGOSTA

Laboratoire de Sciences du Climat et de l’Environnement (LSCE, Paris-Saclay)

Link: https://us02web.zoom.us/j/86277738532

Until the 2000s, it was assumed that the Antarctic ice sheet, because of its large size, would not contribute to sea level on a century scale. Satellite observations have dramatically changed this perspective by revealing that Antarctica is rapidly losing ice. I will present our most recent understanding of the atmosphere-ocean-ice interactions that led to the recent changes in Antarctica, and outline why Antarctica now represents the most uncertain contribution to sea level rise at the end of the 21st century. Finally, I will take a step back to present how we are reconstructing past climate variability with a combination of ice cores, innovative instrumentation and atmospheric modeling.

Cécile Agosta is a climate scientist specialized in Antarctic studies and snow-atmosphere interactions. She obtained her PhD at the Institut des Géosciences de l’Environnement (Université de Grenoble, France), and continued her researches at the University of Liège, Belgium, where she specialized in polar atmosphere modelling. She is now a researcher at the Laboratoire de Sciences du Climat et de l’Environnement (LSCE, Paris-Saclay, France) in an experimental team to interpret Antarctic water vapor and snow isotopic composition with a model-data approach.