



## **Analysis of the past eight glacial-interglacial transitions based on high-resolution chemical ice core data**

**F. Lambert** (1), M. Bigler (1,2), P. Kaufmann (1), E. Castellano (3), M. Severi (3), E. Wolff (4)

(1) Physics Institute, University of Bern, Switzerland, (2) Niels Bohr Institute, University of Copenhagen, Denmark, (3) Department of Chemistry, University of Florence, Italy, (4) British Antarctic Survey, Cambridge, United Kingdom

In the framework of the European Project for Ice Coring in Antarctica (EPICA) an ice core has been drilled on the East Antarctic Plateau at the Dome C site (75°06' S, 123° 21'E), reaching 3270 m depth. Continuous measurements of several different ions have been performed at a resolution of approximately 1 cm down to a depth of 3190 m with a Continuous Flow Analysis (CFA) system.

Here we present the sodium, calcium, ammonium, and electrolytic conductivity records from CFA analysis over the past 800 ka and going back to Marine Isotopic Stage (MIS) 20.2.

Calcium is mainly related to continental aerosols from southern South America, whereas sodium basically derives from sea salt aerosols. Ammonium is probably mostly related to biological activities of the southern oceans.

For each of the past eight glacial-interglacial transitions the different records are investigated and compared for leads and lags and concentration level differences. Special attention is given to Termination V and the cold event at 420 ka BP that appears in several records and shows similar features to the Antarctic Cold Reversal (ACR).