



## **A first chronology for the East Greenland Ice core Project (EastGRIP)**

Seyedhamidreza Mojtabavi (1,2), Frank Wilhelms (1,2), Sune Olander Rasmussen (3), Nanna B. Karlsson (1,4), and Sepp Kipfstuhl (1)

(1) Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Glaciology, Germany (seyedhamidreza.mojtabavi@awi.de), (2) GZG Abt. Kristallographie, Universität Göttingen, Göttingen, Germany (seyedhamidreza.mojtabavi@awi.de frank.wilhelms@awi.de), (3) Centre for Ice and Climate, Niels Bohr Institute, University of Copenhagen, Denmark (olander@nbi.ku.dk), (4) Glaciology and Climate, Geological Survey of Denmark and Greenland, Copenhagen, Denmark (nbk@geus.dk)

Polar ice cores are unique archives recording immediate past atmospheric conditions. They provide, most prominently, reconstructions of past temperature evolution, volcanic eruptions, greenhouse gas concentrations and many other parameters that determine the environmental conditions. The dating of the ice core provides the respective chronology to the recorded past climate conditions. Here, we establish a first chronology for the East Greenland Ice-core Project (EGRIP) core based on matching of electrical conductivity peaks of volcanic origin as recorded by dielectric profiling (DEP) in the EGRIP, NGRIP and NEEM ice cores from Greenland. Our initial dating relies on the transfer of the Greenland Ice Core Chronology 2005 (GICC05) from the NGRIP and NEEM cores to the uppermost 352 m of the EGRIP core from the 2017 field season.