

EGU2020-7411

<https://doi.org/10.5194/egusphere-egu2020-7411>

EGU General Assembly 2020

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## Late Holocene climate variability in the Western Carpathians (East-Central Europe) reconstructed from ice cores records

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Ice cores are key archives in the quest to reconstruct and understand past climate variability. They are generally found in polar and high latitude regions, but caves in the Carpathian Mountains (East-central Europe) host several glaciers thousands of years old. Here, we present a reconstruction of summer and winter air temperatures during the last millennium based on the  $d^{18}O$  and  $d^2H$  values measured in ice cores drilled in the glaciers hosted by Focul Viu (FV) and Scărișoara Ice Caves (SIC), both in the Western Carpathians (East-Central Europe, Romania). In order to understand the climatic signal locked in the two cores, we analyzed the stable isotope composition of the rainfall water, which was subsequently compared with that of the cave ice. Accordingly,  $d^{18}O$  in ice in SIC is a proxy for late-autumn through early winter air temperature, while that in FV for summer air temperatures. The analysis of  $d^{18}O$  values indicate that on centennial scales, air temperature variability during the last 1000 years was controlled by changes during the winter season, summer temperatures being relatively constant (on these time scales). Contrary, short-term variability (decadal to multi-decadal) was well expressed in both seasons. In summer, the main controlling factors seem to be changes in solar radiation and possibly in the strength of the Atlantic Multidecadal Oscillation, while in winter, the strength of the Siberian High could have acted as the main forcing factor.