



Abstract ID : 199

Reconstructing Greenland accumulation rates from ice core $\delta^{18}\text{O}$ data

Content

Ice core $\delta^{18}\text{O}$ data are mainly known for their use as a paleothermometer, but $\delta^{18}\text{O}$ is arguably an even stronger proxy for past accumulation rates. Making the assumption that ice flow thins annual layers progressively and smoothly as time passes, then it is possible to tune $\delta^{18}\text{O}$ -accumulation relationships for all deep Greenland ice cores as well as the RECAP core drilled through the Renland ice cap in 2015. The new methodology is tested with synthetic data generated by assuming various flow regimes and then implemented for ice cores that reach into the Glacial and beyond to reconstruct past Greenland accumulation rates.

Primary author: VINTHER, Bo (Niels Bohr Institute, University of Copenhagen)

Co-authors: NEEM, Isotope Consortium; RECAP, Team

Presenter: VINTHER, Bo (Niels Bohr Institute, University of Copenhagen)

Track Classification: Progress in proxy development and interpretation