Objective: improve our understanding of large scale modes of climate variability in SH

- To enhance our understanding of Antarctic, sub-Antarctic and Southern Hemisphere climate variability over the past 2000 years.
- Evaluate the key drivers of Southern Hemisphere climate variability on regional to hemispheric scales.
- Work towards a community based multi-proxy reconstruction of key modes of variability over the past 2000 years and how they relate to climate in Antarctica, the sub-Antarctic and the wider Southern Hemisphere.
Results from Antarctica 2K

2 papers:


(a) 79 accumulation records
(b) 112 d18O records
Results from Antarctica 2K

[Graph showing time series of total annual SMB (Glacier Mass Balance) in Gt yr⁻¹ from 1800 to 2000, with anomalies at 2σ, 1σ, and 1₀.

Graph (b) shows frequency distribution of trend rates in Gt yr⁻¹, with P < 0.01.

For East Antarctica:
- T anomaly (°C) for CPS: −0.25°C/100y
- T anomaly (°C) for ECHAM: −0.44°C/100y
- T anomaly (°C) for NB2014: −0.47°C/100y

For West Antarctica:
- T anomaly (°C) for CPS: −0.56°C/100y
- T anomaly (°C) for ECHAM: −0.21°C/100y
- T anomaly (°C) for NB2014: −0.42°C/100y
- T anomaly (°C) for Borehole: −0.53°C/100y

For Whole Antarctica:
- T anomaly (°C) for CPS: −0.38°C/100y
- T anomaly (°C) for ECHAM: −0.45°C/100y
- T anomaly (°C) for NB2014: −0.51°C/100y
- T anomaly (°C) for Borehole: −0.34°C/100y

Map of Antarctica showing trend variations from 0-1900 CE.
PAGES CLIVASH-2K

Climate Variability of the Southern Hemisphere

Climate reconstructions:
- Blend low and high resolution
- Include sub antarctica
- Go towards reconstructing climate modes rather than individual variables

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Next meeting: at Polar 2018 (Davos) on June 18th 2017