

# Dependence of pattern effect estimates on the reconstructed SST

Angshuman Modak & Thorsten Mauritsen, Department of Meteorology

[angshuman.modak@gmail.com]

- Model used: MPI-ESM1.2-LR (Atmosphere-only)
- Applied 7 obs/reconstructed SST datasets indicated in figure below
- **Simulated observedSST-piForcing model expts**
- Figure shows change in SST anomaly trends from 1871-2017 relative to the dataset mean

- Pattern effect strength (shown below)
- Top panel:  $0.42 \pm 0.1$  to  $-0.01 \pm 0.1 \text{ Wm}^{-2}\text{K}^{-1}$
- Small unforced pattern effect
- Dissimilarity in spatial pattern of SST change and differences in pattern effect estimates exploratory

- Coherent pattern estimates in recent decades (figure below)
- Particularly from 1970-1980s

