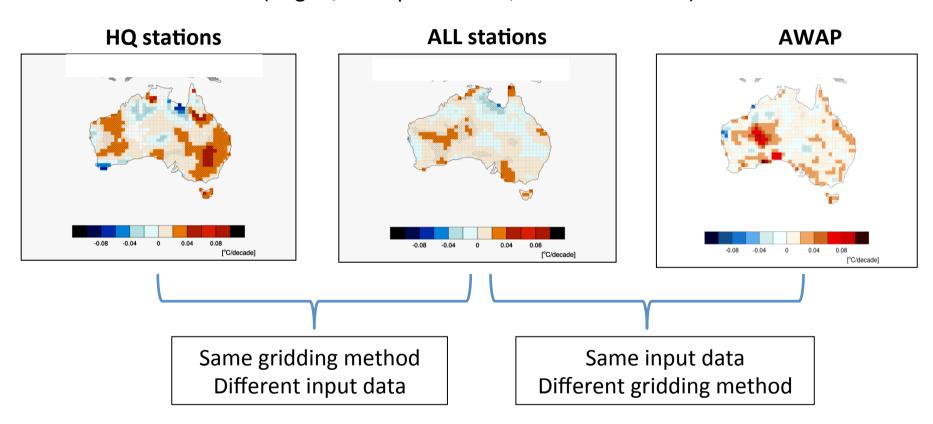
Research Problem 1

Hottest day of the year

(1° grid, fixed parameters, Trend 1951-2009)



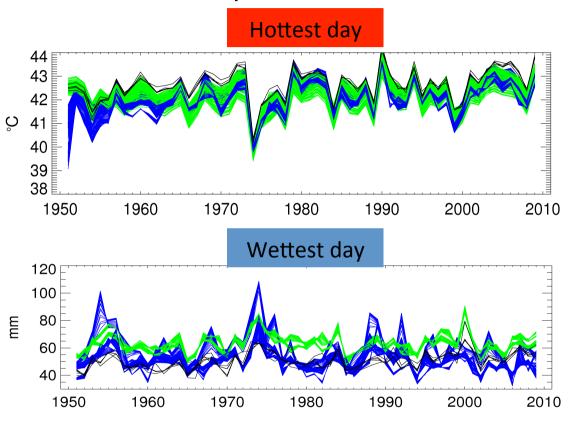






How large is this uncertainty?

Example for Australia



Several hundred realizations by varying:

- Grid size
- Parameters
- Network density
- Interpolation method
- Prior painstaking work on quality control and homogenisation of data



Source: Vogel, 2012



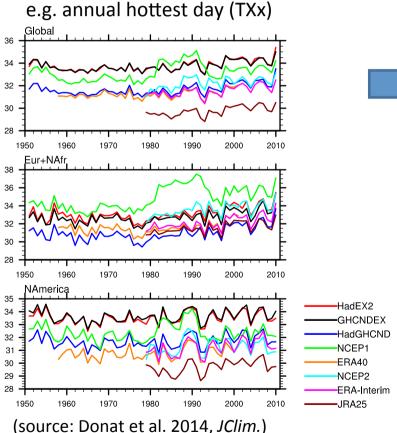




Scaling issues in gridded datasets of extremes

Different computation of annual extremes in gridded observational data and climate models / reanalyses:

interpolation of station extremes vs. extremes from daily grids





Obvious effect on actual values

- But also e.g. on trends?

RP1: systematic investigation of scaling effects related to temperature and precipitation extremes

- Regional study for area with high station density (SE Australia)







Scaling issues in gridded datasets of extremes

Systematic investigation of scaling effects related to temperature and precipitation extremes:

For a region with high station density calculate a range of different grids of annual extremes using

- different order of operation
- different gridding methods
- different resolutions (0.25 to 2.5°)

Investigate for differences in regional time series, trends, etc.

