Probabilistic climate projections

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Abrupt climate change, 13 July 2005
Run each coupled model through idealised experiments:

1. Control (constant CO$_2$ concentration)
2. 1% $p/a$ CO$_2$ increase up to 4xCO$_2$
3. Partially coupled _1: 1% CO$_2$ increase, but f/water flux from Control
4. Partially coupled _2: fixed CO$_2$ concentrations, but f/water flux from 1%
5. Freshwater flux anomaly: 0.1 Sv for 100 years in the Atlantic between 50-70ºN (‘hosing’).
Control experiment
1% Experiments
Relation between mean strength and weakening
Roles of heat/freshwater fluxes in THC weakening