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Workflow and tools to analyse the PMIP4-CMIP6 ensemble

Anni Zhao and Chris Brierley

Department of Geography, University College London, London, United Kingdom (anni.zhao.16@ucl.ac.uk)

Experiment outputs are now available from the Coupled Model Intercomparison Project's 6th phase (CMIP6) and the past climate experiments defined in the Model Intercomparison Project's 4th phase (PMIP4). All of this output is freely available from the Earth System Grid Federation (ESGF). Yet there are overheads in analysing this resource that may prove complicated or prohibitive. Here we document the steps taken by ourselves to produce ensemble analyses covering past and future simulations. We outline the strategy used to curate, adjust the monthly calendar aggregation and process the information downloaded from the ESGF. The results of these steps were used to perform analysis for several of the initial publications arising from PMIP4. We provide post-processed fields for each simulation, such as climatologies and common measures of variability. Example scripts used to visualise and analyse these fields is provided for several important case studies.