

A spate of statistical tests to climate data validation

Supervisor: Reinhard Furrer

Climate change has an indisputable effect on biodiversity. The precise effect of large scale changes are still not well understood and many projects try to assess these forcings. Once relationships have been established, the use of climate projections model data allows to study the effect on biodiversity. The data portal PCMDI

http://cmip-pcmdi.llnl.gov/cmip5/data_portal.html provides virtually terra bytes of data. The data is somewhat processed but is for practical aspects still raw. The Institute for Atmospheric and Climate Science, ETHZ (www.iac.ethz.ch/), in collaboration with the Applied Statistics group (I-Math, MNF) is setting up a user-friendly data portal.

The goal of this Master thesis is to create a suite of (relatively) simple statistical tests that can be applied in a script type fashion to the (raw) PCMDI data to detect erroneous or corrupt runs.

The ideal candidate should have good knowledge of R, basic knowledge of netcdf file structures, scripting. Background knowledge in statistics or climate is a very valuable asset.