Statistical methods used in evaluation of climate model data and impact model data

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Dealing with climate model data or impact model data, particularly when using a large ensemble of data sets, requires the use of statistical methods. A provision of appropriate and approved methods for applications in adaptation issues is helpful and is part of climate services. A first request for statistical methods used in adaptation projects in Germany (mainly in the KLIMZUG-projects) led to a collection of more than 40 procedures which are sorted according to categories. The users filled in standardised tables which contain a description and assessment of the method, requirements for parameters and application, and an example of the presented application. The collection is designated as an online document and published on the homepage of the Climate Service Center. After a second user workshop the collection was expanded by new procedures, a more comprehensive introduction and a glossary. The working group 'Statistics' - the editor of the broschure - complemented the list of procedures by several standard procedures and sorted the categories in a more reasonable way with regard to common data evaluation. The categories comprise frequency distributions, significance tests, downscaling and interpolation methods, extreme value analyses, indexes, space-time methods, ensemble analyses. The collection is now available in German and English as online documents and reports. Even the first version was very successful, there have been more than 1200 download clicks in it's first year. Examples of standardised procedures are presented.