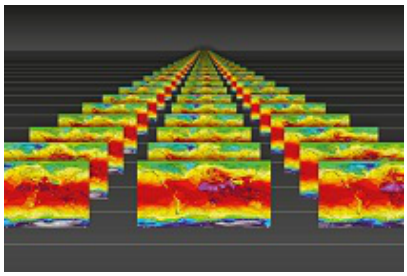

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The S2S Data Base in IRI Data Library: Maprooms and online analysis tools

Wednesday, 3 April 2019 09:45 (30 minutes)

The International Research Institute for Climate and Society Data Library (IRIDL) is a powerful and freely accessible online data repository and analysis web-service that allows a user to view, analyze, and download hundreds of terabytes of climate-related data (including sub-seasonal data) through a standard web browser in a computer or a smartphone. A wide variety of operations, from simple anomaly calculations to more complex analysis such as empirical orthogonal function (EOF), canonical correlation analysis or cluster analyses can be performed with just a few clicks. The IRIDL provides a flexible and fully online interface for easy subsetting, analysis & visualization, and download in a variety of formats, including NetCDF, Google Earth's KML and GIS-compatible layers. Furthermore, the IRIDL is an OpenDAP server, which means local client programs –e.g., written in Python, R or Matlab– can read the desired data online, avoiding the need to download it explicitly, saving disk space and increasing efficiency. IRIDL, conceived in the 1980s/90s, is perhaps the first example in the climate community of the data-server based processing paradigm in which users bring their calculations to the data, rather than simply downloading the data from the library.

Over 50 TB of the S2S Database forecasts and reforecasts, including indices used for evaluating the Madden and Julian Oscillation, recognized by the research community as a key phenomenon acting as source of predictability on the sub-seasonal timescale, are presently available in the IRIDL . All these data are obtained from the ECMWF server and kept up to date in the IRIDL as new forecasts & reforecasts are made.

This talk will introduce the S2S data base in IRIDL and present some examples of online maprooms and analysis tools.

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