N2 DWG1 Science Case — Atmospheric Circulation

*Objective:* Comparative studies of atmospheres of different planets to promote the comprehension of circulation related phenomena, e.g. superrotation.

Needed data sets: Wind and temperature measurements of Venus, Mars, and Titan with the highest available spacial and temporal coverage

Problem description: Wind and temperature data are needed to validate and tune general circulation models (GCMs). Temperature data can also be used to drive GCMs.

*Current solution:* Just use data you occasionally come across.

Services expected from IDIS: Provide all available wind and temperature measurements in a common format with respect to planet, altitude, latitude, longitude, time.

- IDIS shall provide support to the institutes to provide their data on winds and temperatures in an agreed format.
- The institutes commit themselves to
  - provide their data on the WWW,
  - update their data as appropriate,
  - maintain a revision log.
- IDIS shall provide a web interface to access the data. The interface shall
  - collect the revision information and display it,
  - allow to download a homogeneous merged version of all the institutes' data.
- IDIS shall probably *not* provide data base and visualization capabilities. These may be in the responsibility of the data user.