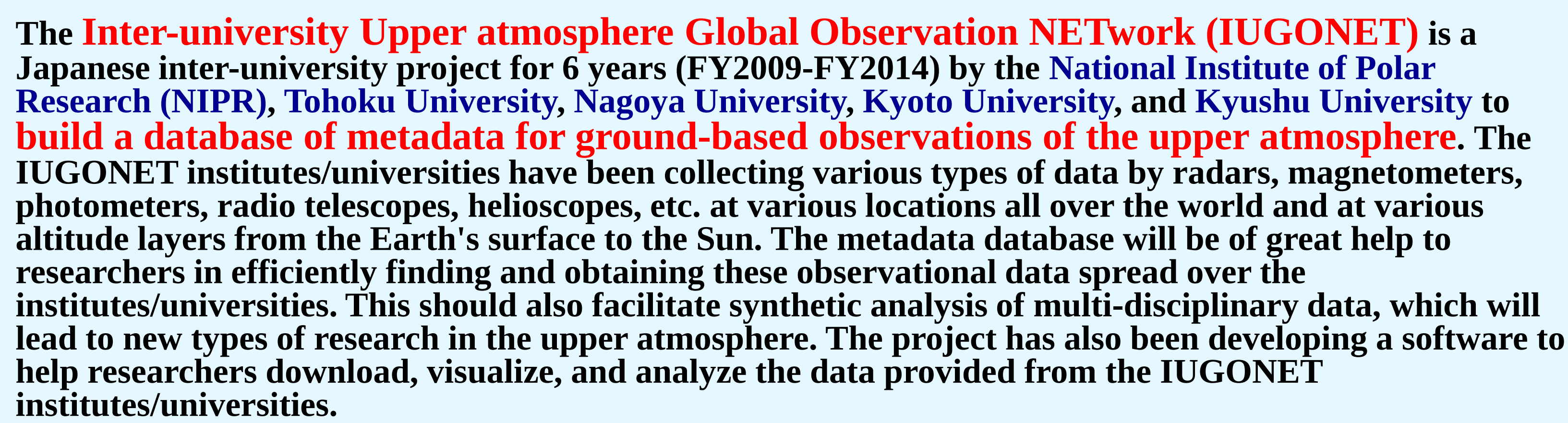


IUGONET website: <http://www.iugonet.org/>



The upper atmosphere is considered a compound system consisting of the mesosphere, thermosphere, ionosphere, and magnetosphere. Although the different atmospheric layers are often referred to as independent regions, they are closely coupled by exchange of materials, momenta, and energies through complicated physical processes, for example,

- Energy input from the sun (e.g., ultraviolet radiation and the solar wind, drive convection of both neutral and charged particles,
- Momenta and energies from the stratosphere and troposphere injected by atmospheric waves,
- Many internal phenomena (e.g., electromagnetic energy transport, plasma convection, chemical reaction).

We have various kinds of observational data acquired so far by global observation networks of radars, magnetometers, photometers, radio telescopes, helioscopes, etc.

The databases of these ground-based observations, however, have been managed and maintained by each university/institute that conducted the observation. It is often the case that the data have been used by only a very few researchers who were involved in the observation campaign. There is no way for general, potential users to find out these databases due to lack of information.

The IUGONET project aims at building a metadata database of the upper atmospheric data acquired by ground-based observations so that people can obtain information of various data from the metadata database. This will promote effective use of the observational data spread across universities and institutes, and then lead to new interdisciplinary, comprehensive studies regarding the upper atmosphere.

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