Yubao Qiu (Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences; RADI, CAS)

Community Portal of the Data and Observations for High Mountain Asia Exercise of CAS

This special task is something similar with the planned Glacier Melting Toolbox (GMELT) in the CAS-NASA communication in the past three workshops, while it will provide a platform with the similar function of community portal.
There are various research topics concerning snow and glaciers in High Mountain Asia (HMA), including diverse remote sensing observations, algorithms, modelling methods. The goal of the project is to build community portal platform (GMELT, Glacier Melting Toolbox) for effectively integrating data, algorithms and models for process study, model simulation and decision support.

The project will focus on the interactive interface and standard for linking different projects in HMA. We will work with the High Mountain Asia Team (HiMAT) to build a comprehensive service platform for validation and calibration based on multiple remote sensing data sets and related products. Moreover, we will coordinate different projects within the whole program to support effective cooperation and to link results and components derived by each project.

The designed platform will be supported by the developments and achievements of all the research topics, and then foster collaboration among the interdisciplinary team in the program. The main tasks of the project can be divided into two parts: to set up a useful platform for information (data/products/models/etc.) exchange and integration and to build an interface for international platforms, such as the sister system.

The specific objectives for this Community Portal platform are:

- The platform will be implemented based on dynamic Web technology, include the management of data from in-situ and remote sensing available openly, model and tool sets, decision-supportive module, multiple products, news and events.
- Set standards for data/products exchange within the special topics under CAS-HiMAT team,
- Develop the interactive functions (display, search, analysis, etc.) for changes of typical parameters, like snow, glacier, lake ice, and etc. in HMA.
- Multi-platform interaction: To set up the standards (with the help of Data theme) for connecting multiple platform, which is the interface to other platforms (i.e. DBAR big data platform, NASA GMELT plaform, etc.)