



Panta Rhei – Everything Flows
Change in Hydrology and Society
IAHS Scientific Decade 2013-2022
www.iahs.info/pantarhei

Summary of the activity of the Panta Rhei Working Groups – Year 2014

Title of the Working Group: Modeling Hydrological Processes and Changes

Report of the activity of the working group in 2014

In August 25th, 2014, the MHPC working group held its kick-off meeting in Sun Yat-sen University, Guangzhou, China, and the symposium on modeling hydrological processes and changes was held in the following two days, which was jointly organized by 5 other Panta Rhei working groups, such as the Mountain Hydrology working group, the Prediction under Changes working group etc.

During this meeting, the members discussed MHPC's working plan, decided that some typical rivers from the world, called MHPC Rivers should be selected and be studied, that efforts should be made in publishing papers in internationally refereed journals as special issues reflecting the research outputs of the group members, that symposium and workshop should be organized during international events, such as IAHS assembly, EGU, AGU, etc., that standardized hydrological modeling system may be developed for shared uses of its members. In the end, the Pearl River including the cities in its delta area was selected as the first MHPC River. The study on modeling Pearl River hydrological process and changes shall be led by Prof. Yangbo Chen, the working group's leader and the Director of the lab of water disaster management and hydroinformatics at the Sun Yat-sen University. Prof. Chen's team is willing to develop a river hydrological modeling system shared by the MHPC members based on their existing High Performance Computer by employing the Liuxihe Model, a physically based distributed hydrological model.

In early December of 2014, a workshop on Modeling hydrological processes of Chinese MHPC(C-MHPC) Rivers was held in Sun Yat-sen University, Guangzhou, China. 8 candidate C-MHPC Rivers were discussed and members are encouraged to make further investigations before being accepted. During this workshop, the Liuxihe Model was presented and the hydrological modeling system based on Liuxihe Model was introduced.

Description of the opportunities provided by Panta Rhei

MHPC 2014 activities largely promoted Panta Rhei visibility in China, the majority of the Chinese academic hydrological community heard Panta Rhei, many young hydrologists hope

to contribute to Panta Rhei. Prof. Yangbo Chen led a big proposal to Chinese funding agency on modeling the urban flooding of the cities in the Pearl River Delta Area, which has passed the academic evaluation and now is in the negotiation of the budget, it is likely to be supported.

Suggestions for the future development of Panta Rhei

Please provide suggestions and criticism (max 150 words) on Panta Rhei. Would could Panta Rhei do better?

We suggest holding Panta Rhei annual symposium or workshop to provide a platform for Panta Rhei communities to exchange ideals and research outcomes, and also to provide a chance for holding the individual working group's annual meeting, this meeting should be held in different continent. The first symposium or workshop may be held in African or South American to promote Panta Rhei activities in these continents.

We suggest publishing one Panta Rhei special issue in HSJ and more in other journals every year, and the papers included in HSJ may be more than a normal issue. This may help disseminating Panta Rhei research outcomes and promoting Panta Rhei visibility among the world academic communities. A quarterly Panta Rhei newsletter may be edited from 2015.