

[JJ] Evening Poster | U (Union) | Union

## [U-08]Developing the Future Plan and Road Map for Earth and Planetary Science Research

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This session offers an opportunity for scientists from across the country to discuss what it takes to advance earth and planetary science research. This comes at a time when the Science Council of Japan is preparing to revise the Masterplan for Advancing Major Academic Research in 2020. In order to advance earth and planetary science studies, it is essential to have an action plan that provides the framework for building upon basic and applied research work by individual scientists to further expand the scopes of the studies. Thus, this session aims to engender discussions and ideas that would help further flesh out the Dream Roadmap for Science and Engineering Research as part of the masterplan. Cognizant of the importance of defining steps to reach its goals, the Science Council of Japan has created the masterplan, which includes the roadmap. In earth and planetary sciences, there is a separate roadmap for each of the following: Space and planetary science; hydrospheric atmospheric science; human geosciences; solid earth sciences; and earth life sciences. This segmentation corresponds with how the Japan Geoscience Union subdivides the field. The masterplan 2017 calls for large-scale research projects on 12 different themes. Of those, seven projects were selected for hearings before the Council chose one of them as the Focus large-scale research project. This Union Session kicks off the project to take a close look at the changes that occurred in the field of earth and planetary sciences since 2014 and update each of those roadmaps with the nuts and bolts. The new roadmaps should reflect the large-scale projects being considered in each research segment as well as cross-segment projects. The session should spur ambitious proposals and active discussions about the future of earth and planetary sciences and roadmaps for research in all of the five segments as well as cross-segment research.

## [U08-P11]Frontiers in hydrology and water resources research - Future perspectives from early career researchers &ndash;

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Young researchers and graduate students of in the Japan Society of Hydrology and Water Resources has continued inter-researcher networking for encouraging intensive interaction and future collaboration since 2009. As one of this activity,12 early career researchers summarized the review and future perspectives of their expertise, mainly focusing around their ongoing research progress in the field of hydrology and water resources research. The target fields are hydro-climatology/meteorology, data analysis for hydrology and water resources research, catchment hydrology, environmental hydrology, and irrigation and drainage engineering. Finally, we found some common issues among the above broad research fields: 1) applied studies do not just convert findings of fundamental research into practice but also shed light on unvalued issues at a fundamental level; therefore, intensive interaction between

fundamental and applied studies are essential, 2) we need stronger recognition to the fact that infinite combination of numerical experiments are becoming realized thanks to enrichment of computer resources, which yields number of publications, but their principles are based on long-term field observation, 3) AI technology is expanding control problems, 4) interdisciplinary collaboration should be more emphasized, 5) various types of studies, which indirectly contributing society through the enhancement of the quality of research work such as development of basic geographical dataset and/or uncertainty analysis, must be more highly evaluated, 6) broader sharing of data and their observation/analysis technique is necessary for enhancing research work of other fields as well as their own field. We confirmed that it is important to process our research with these perspectives.