Hydrometeorological Extremes and Its Local Impacts on Human-Environmental Systems

Message from the Guest Editors

Extreme events of tropical typhoons in summer cause a number of casualties as well as a tremendous amount of social and financial loss. Such climate changes are expected to continue in the 21st century, and the intensity and frequency of typhoons over the Pacific Northwest region will increase. As a result, serious damage over East Asia is expected, and thus, quantitative evaluation of the possible influence and establishment of a disaster-preventive system is urgent. Extreme hydrometeorological events are critically important not only for their episodic impacts, such as floods or droughts, but also for their significant contribution to seasonal freshwater supplies that maintain the integrity of the human and natural system. This Special Issue of Atmosphere focuses on hydrometeorological extremes and their local impacts on human–environment systems. Particularly, we welcome the topics of observational and model-based studies that could provide useful information for infrastructure design, decision making, and policy to achieve our goals of enhancing the resilience of human–environment systems to climate change and increased variability.