LSGI & RILS RESEARCH SEMIN

Revisiting climate change risks through the lens of compound extremes







ENGLISH

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ABSTRACT

Despite mounting evidence on the influence of anthropogenic climate change on frequency and intensity of weather and climate extremes, the spatiotemporal connection amongst extremes has also been unintentionally altered, shaping novel types of events with larger impacts. It is therefore imperative and urgent to adopt a compound event perspective for revisiting past understanding on extremes. This requires a bottom-up re-designing of identification, simulation, attribution and projection methods. Also, a multi-sphere interactive perspective becomes essential to the process understanding. This talk will focus on these emerging topics, and attempts to provide deeper insights into changing rates, impacts and risks of extremes in a warming climate. Limitations, challenges and future directions in studying compound extremes would be also briefly discussed.

BIOGRAPHY

Yang CHEN is a professor at the Chinese Academy of Meteorological Sciences. He has published more than 80 peer-reviewed papers on climate change and compound extremes, with several on Nature/Science Family journals and highlighted by Nature. Some of the devised indices and methods have been used in the operational services at the World Meteorological Organization (WMO) and National Meteorological/Climate Center of China.

He serves as a Lead Author in the seventh Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), and a drafting author for the Summary for Policymakers of the IPCC Special Report on global warming of 1.5 °C. He is an Editorial Board Member in Environmental Research Letters, and a group member of the WCRP Lighthouse Activities.

Moderator: Prof. Shuo WANG, Associate Professor of LSGI, member of RILS

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