

# Regional climate modelling for assessing anthropogenic influences on extreme heat stress

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## Speaker

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## Abstract

The most relevant anthropogenic activities that can significantly modify the Earth's climate system are greenhouse gas (GHG) emissions and land-use/land-cover changes. A regional climate model (RCM), with its high-resolution capabilities over the targeted region, stands out as a crucial tool for isolating specific climate responses to anthropogenic forcings and deepening our understanding of the underlying physical mechanisms, despite the presence of inevitable uncertainties. As a showcase of RCM utilization, this presentation demonstrates how accelerating global warming, induced by continuous GHG emissions, along with urban growth, can intensify heat stress risks in the Pearl River Delta (PRD) and the Yangtze River Delta (YRD), where dangerous and intolerable level of heat stress have already been witnessed.

**The seminar will be in Korean**