

Development of an Atmospheric Simulation Model for Estimating the Probability of Local Atmospheric Phenomena

Project manager

(selected in 2021)

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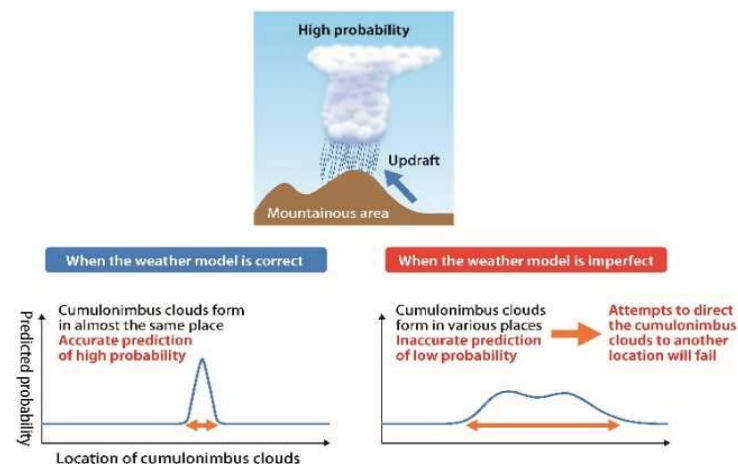
RIKEN

R&D institutions

RIKEN, Tohoku University,
University of Hyogo, The
University of Osaka, and Keio
University

Summary of the project

In weather control, the ease of control and suitable control methods differ for each weather case. Therefore, in order to realize weather control, it is necessary to be able to determine the optimal control method for a target phenomenon. In order to select the optimal method, it is important to accurately estimate the probability associated with properties of phenomena, such as location, time, and intensity. However, inherent problems in atmospheric simulation models create a bottleneck in the estimation of probability. This project aims to develop an atmospheric simulation model suitable for this estimation, developing new computation schemes that are qualitatively different from conventional ones. This is expected to result in more accurate probability estimation and contribute to the realization of weather control.



An illustration of an inaccurate estimation of probability due to an imperfect atmospheric simulation model.

Milestone by the end of the project (2024)

By developing and implementing computation schemes that are qualitatively different from conventional methods, the probability distribution obtained by ensemble simulation approaches that of natural phenomena.

Project structure

