Session 1.2 Climate change on regional hydrological systems by simulations and observations

- · Added values of dynamical downscaling for regional climate studies
- How to validate the model results and how to apply the climate change information including uncertainties

Precipitation and snow events and extreme events

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Dr. Rasmussen:

Importance of a convective permitted scaling for representing MCSs and its climate change

• Their 4-km model successfully simulates MCSs over the US.

Dr. Adachi:

Considering the perturbation change in pseudo climate change techniques

• How important the perturbation change and non-linear effects in climate change is for various target regional systems.

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Observations and sufficient ensemble simulations are needed to evaluate local climate change.

Dr. Kawase:

Necessity of high resolution model and large ensemble simulations for investigating climatological change of extreme snow events

• Future snow decreases on the plain fields and increases in the mountain area over Japan.

Dr. Ueno:

Sensitivity of observation data for various scale phenomena

- Focusing on mountain weather
- Forest phenology, synoptic fields ..

We need new ways for efficient creations of regional climate dataset to save computational times.

Dr. Tanaka:

Introducing an application study of a global climate dataset for estimating a regional water resource