

Toward precise projection and assessment of future ocean changes

Hiroyasu Hasumi[1]

[1] CCSR, University of Tokyo

The ocean has currents of various spatial scales from local to global, and they interact with one another to determine their own states. These oceanic currents significantly affect the human society by influencing the atmospheric state through their heat transport and also by influencing coastal and fishery environment. We are now facing global warming, a long-term, global-scale climate change. It is one of our urgent tasks to clarify how the ocean will respond to and control the climate change. For that purpose, we first need to understand the ocean general circulation as an entity made up of currents of various scales and their interaction, and then need to properly model its governing processes to construct a precise ocean modeling system. This presentation introduces our attempt in this regard and its future perspective.