

## 当密度面層モデルへのキャノピーコンポーネントの組み込み

## Introduction of canopy component into Isopycnal-layered model for hydrological calculation

\*山敷 庸亮<sup>1</sup>、Maharjan Manisha<sup>2</sup>、米田 稔<sup>2</sup>、木田 新一郎<sup>3</sup>

\*Yosuke Yamashiki<sup>1</sup>, Manisha Maharjan<sup>2</sup>, Minoru Yoneda<sup>2</sup>, Shinichiro Kida<sup>3</sup>

1.京都大学大学院総合生存学館、2.京都大学大学院工学研究科、3.海洋研究開発機構

1.Global Water Resources Assessment Laboratory - Yamashiki Laboratory Graduate School of Advanced Integrated Studies in Human Survivability Kyoto University, 2.Graduate School of Science, Kyoto University, 3.JAMSTEC

Isopycnal-layered model (Kida and Yamashiki, 2014) was proven to be an innovative river-ocean interactive model capable for handling both land-ocean and ocean-land interaction without creating specific physical component. According to their modeling, calculated discharge at each subbasin showed good agreement with gauged data without making any specific adjustment. At the same time, the original model was, since established for oceanographic usages, no component was prepared to trace hydrological processes.

In this study, we introduced how to develop basic hydrological component in the model and performed several testing calculation comparing the original model output and revised model scheme. The infiltration ratio and storage ratio in each canopy is set and included in hydrological processes in forest zone.

By introducing this basic hydrological component, this Isopycnal-layered model can be applicable for all different basins with minimum requirement (DEM and Land-use), which may facilitate significantly for the continental-oceanic integrated calculation.

キーワード：当密度層モデル、キャノピーモデル

Keywords: Isopycnal-layered model, Canopy model