



## **Preparing for the ingestion of SWOT data into continental-scale river models**

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The Surface Water and Ocean Topography (SWOT) mission is currently scheduled to launch at the end of this decade. SWOT should retrieve unprecedented measurements of water extent, elevation, and slope in the largest terrestrial water bodies. Such potential transformative information motivates the investigation of our ability to ingest the associated data into continental-scale models of terrestrial hydrology.

In preparation for the expected SWOT observations, an inter-comparison of continental-scale river models is being designed. This comparison experiment focuses on four of the world's largest river basins: the Amazon, the Mississippi, the Niger, and the Saint-Lawrence. This ongoing project focuses on two main research questions: 1) How can we best prepare for the expected SWOT continental to global measurements before SWOT even flies?, and 2) What is the added value of including SWOT terrestrial measurements into global hydro models for enhancing our understanding of the terrestrial water cycle and the climate system?

We present here the preliminary architecture of the inter-comparison in hope to motivate community feedback and involvement.