**Probabilistic Sea Level Projections from Ice Sheet and Earth System Models (ProSPect)**

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The U.S. Department of Energy (DOE) SciDAC program (Scientific Discovery through Advanced Computing) brings together expertise in domain science, applied mathematics, and computational science to address important scientific problems using DOE’s High-Performance Computing (HPC) resources. The SciDAC ProSPect project, started in 2017, aims to address limitations to DOE’s ice sheet models (ISMs) and Earth System Model (E3SM) that currently limit their application towards probabilistic sea-level projections. Project focus areas include the improvement of 1) missing or inadequate ISM physics, 2) partial or missing coupling between ISMs and ESMs, 3) ISM initialization methods targeting coupled ISM and ESM simulations, 4) ISM uncertainty quantification towards probabilistic sea-level projections, and 5) computational performance of ISMs on next-generation HPC architectures. Here, we provide an overview of recent progress and discuss the focus of efforts in the final two years of the project.