OOKAMI PROJECT APPLICATION

Date: 11/29/21

Project Title: Benchmarking the FVCOM Ocean Model on A64FX:

Usage: Testbed

Principal Investigator:

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Usage Description:

We will be building and running the FVCOM unstructured grid ocean model on the A64FX system and comparing performance against our local cluster which is based on Intel 6226R Xeons. We will be running a suite of benchmarks consisting of a range of problem sizes with both 2D (shallow water equation) and 3D (hydrostatic primitive equation) solvers.

Computational Resources:

- Total node hours per year: 1000 (includes spinup, tuning, benchmarking)
- Size (nodes) and duration (hours) for a typical batch job: We will be exploring scalability across a range of a node counts. Maximum expected job size: 12 node-hours (24 nodes x 30 minutes).
- Disk space (home, project, scratch): We will not need more than 100GB for this project.

Personnel Resources (assistance in porting/tuning, or training for your users): None

Required software: Fortran/C Compilers; MPI