OOKAMI PROJECT APPLICATION

Date: **2021/6/25**

Project Title: WRF performance on OOKAMI

Usage:

☒ Testbed

☐ Production

Principal Investigator:

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Names & Email of initial project users:

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Usage Description:
Install one of our in-house HPC benchmarking code (based on WRF) to run on your system; so that we have an data point that may be useful for extending our variation of computer archetectures. The exercise also tell us how much man-hours to port our benchmark code to a new architeture.

Computational Resources:

Total node hours per year: 800 node hours

Size (nodes) and duration (hours) for a typical batch job: 42 nodes half an hour for a job

Disk space (home, project, scratch): 28GB

Personnel Resources (assistance in porting/tuning, or training for your users**):**
If there is any video or tuitorial about the A64FX, that would be great.

Required software:
I will install the dependent libraries required by WRF

If your research is supported by US federal agencies:

Agency: NASA Ames Research Center

Grant number(s): N/A

Production projects:

Production projects should provide an additional 1-2 pages of documentation about how
(a) the code has been tuned to perform well on A64FX (ideally including benchmark data comparing performance with other architectures such as x86 or GPUs)
(b) it can make effective use of the key A64FX architectural features (notably SVE, the high-bandwidth memory, and NUMA characteristics)
(c) it can accomplish the scientific objectives within the available 32 Gbyte memory per node