Nonlinear Aeroelastic Framework for Multi-fidelity Analysis

Report Number: R19EDA101S01
Subject Category: Aeronautical Technology
URL: https://www.jss.jaxa.jp/en/ar/e2019/11581/

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Abstract

Nonlinear Aeroelastic Framework for Multi-fidelity Analysis

Reasons and benefits of using JAXA Supercomputer System

Because high fidelity analysis is very expensive for simulation

Achievements of the Year

An unsteady vortex-lattice aerodynamic method and a fast unstructured CFD code are coupled with the structural model subject to the large deformations, providing different fidelity solutions.

Publications

N/A

Usage of JSS2

Computational Information

Process Parallelization Methods	MPI
Thread Parallelization Methods	N/A
Number of Processes	32 - 64
Elapsed Time per Case	2 Hour(s)

- **Resources Used**

Fraction of Usage in Total Resources[*1](%): 0.00

Details

Computational Resources		
System Name	Amount of Core Time (core x hours)	Fraction of Usage[*2](%)
SORA-MA	12,095.78	0.00
SORA-PP	481.02	0.00
SORA-LM	0.00	0.00
SORA-TPP	0.00	0.00

File System Resources		
File System Name	Storage Assigned (GiB)	Fraction of Usage*2(%)
/home	15.89	0.01
/data	158.95	0.00
/ltmp	3,255.21	0.28

Archiver Resources		
Archiver Name	Storage Used (TiB)	Fraction of Usage*2(%)
J-SPACE	0.00	0.00

[*1]: Fraction of Usage in Total Resources: Weighted average of three resource types (Computing, File System, and Archiver).

[*2]: Fraction of Usage：Percentage of usage relative to each resource used in one year.