

Pressurized Rover Development

Report Number: R24EEE21201

Subject Category: Space Exploration

URL: <https://www.jss.jaxa.jp/en/ar/e2024/26913/>

Responsible Representative

Masaru Wada, Human Spaceflight Technology Directorate, Pressurized Rover Engineering Center

Contact Information

Nobutaka Tanishima(tanishima.nobutaka@jaxa.jp)

Members

Nobutaka Tanishima

Abstract

Development of Pressurized Rover

Pressurized Rover is an exploration vehicle that can explore the surface of the Moon, while astronauts live aboard the rover. This system can be used to survey the geology and resources of the Moon's surface over a wider area, including during unmanned periods.

Reasons and benefits of using JAXA Supercomputer System

Since Pressurized Rover is operated on the Moon, it is essential to mitigate the regolith. To design regolith mitigation, defining the environment is required, and a supercomputer will enable analysis of the behavior of a very large number of particles to define the environment.

Achievements of the Year

Preparation for installation of particle dynamics analysis simulator (EDEM) into JSS3

Publications

N/A

Usage of JSS

Computational Information

Process Parallelization Methods	N/A
Thread Parallelization Methods	N/A
Number of Processes	1
Elapsed Time per Case	0 Second(s)

- **JSS3 Resources Used**

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

Details

Computational Resources		
System Name	CPU Resources Used (core x hours)	Fraction of Usage*2(%)
TOKI-SORA	0.00	0.00
TOKI-ST	0.80	0.00
TOKI-GP	0.00	0.00
TOKI-XM	0.00	0.00
TOKI-LM	0.00	0.00
TOKI-TST	0.00	0.00
TOKI-TGP	0.00	0.00
TOKI-TLM	0.00	0.00

File System Resources		
File System Name	Storage Assigned (GiB)	Fraction of Usage*2 (%)
/home	0.00	0.00
/data and /data2	0.00	0.00
/ssd	0.00	0.00

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.

- **ISV Software Licenses Used**

ISV Software Licenses Resources		
	ISV Software Licenses Used (Hours)	Fraction of Usage ^{*2} (%)
ISV Software Licenses (Total)	0.00	0.00

^{*2}: Fraction of Usage : Percentage of usage relative to each resource used in one year.