

## Science case study using SLIM small lunar lander

# Tatsuaki Okada[1]; Shujiro Sawai[1]; Seisuke Fukuda[1]; Okada Tatsuaki SLIM Science Group[2]

[1] ISAS/JAXA; [2] -

<http://planetb.sci.isas.jaxa.jp>

Next to the current lunar orbiter invasion to the Moon, the lunar lander is demanded for observation to investigate lunar interior and crust structures.

A small mission other than the large one will search for the best choice of future lunar missions.

A small scientific satellite will be confirmed three ones in five years.

The small lunar lander SLIM is under study in the working group, for engineering experiments of optical navigation and smart precise landing.

Current mass allocation is severe for some experiments, and mass budget will be so small. Some scientific missions could be even possible onboard.

1) Detailed measurements of magnetic structures. Magnetic anomalies are very remarkable.

2) Direct access to crater central peak. Some place has materials exposed from deep interior, such as Copernicus crater.

3) Other investigate or landing site

Relatively young areas will be the target places to investigate, such as Lichtenberg. Volcanic domes, dark-halos are also considered as the candidate sites.