Small spacecraft mission in ISAS/JAXA

Masato Nakamura[1]; Hirobumi Saitou[2]; kazuhisa mitsuda[3]; Yoshifumi Inatani[4]

[1] ISAS/JAXA; [2] Department of Space Information and Energy, ISAS, JAXA; [3] ISAS, JAXA; [4] ISAS, JAXA

http://www.isas.ac.jp/j/index.shtml

Small spacecraft mission in ISAS/JAXA is discussed.

It is a flow natural to develop a large-sized satellite in development of space science. But there is a problem also in a large-sized plan.

o long development cycle

-- It is hard to form a timely plan.

-- It does not agree with the life cycle of an engineer and a researcher.

o huge cost

-- The risk of failure is large.

-- It becomes a conservative plan.

-- An aggressive plan is hard to be adopted.

o There is a science which is not suitable with lage spacecraft.

o Decline of technology

-- There is no step of the suitable technical development to the large-sized plan from a laboratory.

-- No good enginners are grown up

-- Entry from a new field is difficult.

To overcome this difficulty we carried out the feasibility study of small spacecraft mission at ISAS.