

MICROGRAVITY SCIENCES AND PROCESSES (A2)
Microgravity Sciences onboard the International Space Station and Beyond (6)

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ITALIAN SPACE AGENCY. THE NATIONAL UTILIZATION OF THE INTERNATIONAL SPACE
STATION: 2001-2010 AND BEYOND

Abstract

Per effect of the MPLM Memorandum of Understanding between the NASA and the Italian Space Agency, Italy has benefitted since 2001 from a share of ISS utilization resources. Those resources have been allocated to a series of experiment mainly in the field of the Life Science. Starting with the ESA payload APCF, ASI has used its share to accommodate eight payloads and to conducts experiments adding up to about 120 hours of astronauts crew time.

The paper illustrates the utilization experience carried out by the Italian Space Agency in developing and integrating seven payloads for the ISS, including the three payloads currently on board: HPA, ALTEA, Elite-S2 and the first animal facility for the ISS, MDS. As well, an overview of the scientific outcomes or expectations from the experiments performed will be provided. The Esperia Mission is presented too, as together with the Italian astronauts Paolo Nespoli, two Italian payloads (FRTL-5, SPORE) were integrated and carried on-board the STS 120 flight. Moreover, P. Nespoli performed on-board ISS a further run of the HPA experiment. An overview is provided of the plan of the Italian Space Agency for future utilization of its resources on the ISS, starting from the payloads for the flight STS-134, that carries on-board the Italian astronaut. Roberto Vittori.