International Session (Oral) | Symbol P (Space and Planetary Sciences) | P-PS Planetary Sciences

[P-PS02_28AM2]Mars

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Mon. Apr 28, 2014 11:00 AM - 12:10 PM 418 (4F)

The study on Mars has greatly been advanced due to new data from modern missions as well as to new results from theoretical and numerical works. Morphology and variable phenomena, seen on the surface, in the atmosphere and its surrounding plasma, all indicate that Mars is still an active planet.After the successful launch of Japan's new EPSILON rocket (September 2013), possibilities of small planetary missions are becoming more realistic (Mars is the most important target object, of course). In this session, current researches on Mars, including the latest results from missions, as well as future mission plans are discussed.

11:40 AM - 11:55 AM

[PPS02-P01_PG]Interannual analyses of the meridional distributions of Martian dust and clouds obtained by MRO-MCS

3-min talk in an oral session

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Keywords:火星, MRO, MCS, ダスト, 水氷雲

We investigated the interannual variability of the meridional distributions of dust and clouds in the Martian atmosphere by using Mars Reconnaissance Orbiter Mars Climate Sounder (MRO-MCS) measurements. As the previous analyses did not consider measurement errors to depict the zonal averages, we took a criterion of 10% for the measurement error. Results show that Mars Year (MY) 29, which is regarded as a standard year in the previous analyses, had an enhancement of dust in the high altitudes (above 10 Pa) in the tropical region, and such an enhancement was not found in other MYs (28, 30 and 31). On the other hand, the distribution of ice clouds in MY 29 roughly agreed with other MYs' distribution.

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