Studying the Martian meteorology in the Japanese Mars mission (1)

Takeshi Imamura[1]; YASUKO KASAI[2]; Takeshi Kuroda[1]; Hideo Sagawa[3]; Munetaka Ueno[4]; Makoto Suzuki[1]; Yoshiyuki O. Takahashi[5]; George L. Hashimoto[6]; Takehiko Satoh[1]; Takehiko Satoh Working Group for MELOS Mars Exploration Mission[7]

[1] ISAS/JAXA; [2] NICT; [3] MPS; [4] Dept. of Earth Sci. and Astron., Univ. of Tokyo; [5] Department of Earth and Planetary Sciences, Kobe Univ.; [6] Kobe Univ.; [7] -

The strategy of Mars meteorological orbiter will be presented. The science goals are 'the interaction between the atmosphere and subsurface ice' and 'atmospheric dynamics'. Global, high-resolution, continuous mapping of water vapor, cloud, dust and atmospheric temperature will be performed from high orbit for this purpose, and submillimeter sounder will be used to map watar vapor, D/H ratio, winds and temperature in three-dimensions.