

**P230-015**

**Room: 201B**

**Time: May 18 10:10-10:20**

## Atmospheric escape from Mars and possible plans of observation

# Naoki Terada[1]; Naoki Terada Martian aeronomy group[2]

[1] NICT/JST; [2] -

Mars is thought to have had large amounts of water and greenhouse gas at its primitive epochs. Morphological analysis of the martian surface indicates that large bodies of liquid water were probably present on its surface. To maintain liquid water at the late Noachian period, a CO<sub>2</sub> atmosphere of 1 bar is at least required. Atmospheric escape to space is regarded as one of the probable processes that have removed huge amount of water and a dense atmosphere from Mars over the last 3.5-4 Gyr. We will present recent progresses of our understanding of the escape processes as well as its limitation, which is mostly caused by the lack of in-situ/remote sensing observation. Possible future plans of observation will be also presented.