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Room:Convention Hall

Time:May 24 14:00-16:30

Heavy ion escape processes for non-magnetized planet: The comparison between Mars and Venus

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Mars and Venus do not possess a significant global intrinsic magnetic field, and hence the solar wind directly interacts with the ionosphere. Mars Express spacecraft observed the Martian tail and the heavy ions consisting of O^+ , O_2^+ and CO_2^+ escape from Martian ionosphere. On the other hand, Venus Express spacecraft observed the tail and the heavy ions consisting of only O^+ and do not observed the O_2^+ and CO_2^+ , which produced at the low-altitude region of the ionosphere. To investigate the discrepancy of the observed ion species between Mars and Venus we simulate the escape ions and escape processes by using a 3-D MHD numerical code including the realistic ionosphere.

Keywords: Mars, Venus, escape, simulation