

Martian Plasma Waves

Scientists from the **Indian Institute of Geomagnetism** studied **high-frequency** <u>plasma waves</u> in Mars' upper atmosphere using data from <u>NASA's MAVEN spacecraft</u>.

- The study found two types of waves in Mars' magnetic environment—some below and some above the electron plasma frequency. These waves are important because they help us understand how electrons behave around Mars.
- NASA's MAVEN (Mars Atmosphere and Volatile Evolution) was launched in November 2013 with the mission to gain insights of the planet's atmospheric conditions.
- Plasma waves are oscillations or disturbances in the electric and magnetic fields that propagate through plasma, which is a state of matter consisting of charged particles like ions and electrons.
 - These waves play a significant role in various plasma phenomena, influencing energy transfer, particle acceleration, and the behavior of charged particles within plasmas found in space.

Read more: NASA's MAVEN spacecraft

PDF Refernece URL: https://www.drishtiias.com/printpdf/martian-plasma-waves