Martian Plasma Waves

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

- 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