

# Juno spacecraft at Ganymede in 2021

**Juno charged particle instrument data suggest that high electron losses may correspond to strong weathering on Ganymede.**

- On June 7, 2021, the Juno spacecraft passed by the moon Ganymede (radius=2634 km) at an altitude of 1046 km.
- Data from the Juno charged particle instrument, JEDI, shows heavy losses in electrons (Fig. 1, top) but weak losses in protons (Fig. 1, bottom).
- Ganymede has a strong albedo change on its surface between its poles and equator.
- It has been proposed that the surface color changes are due to how particles affect the ice in the top layer.
- The heavy losses in electrons suggests absorption and potential space weathering on the surface of Ganymede, resulting in the observed color and albedo changes.

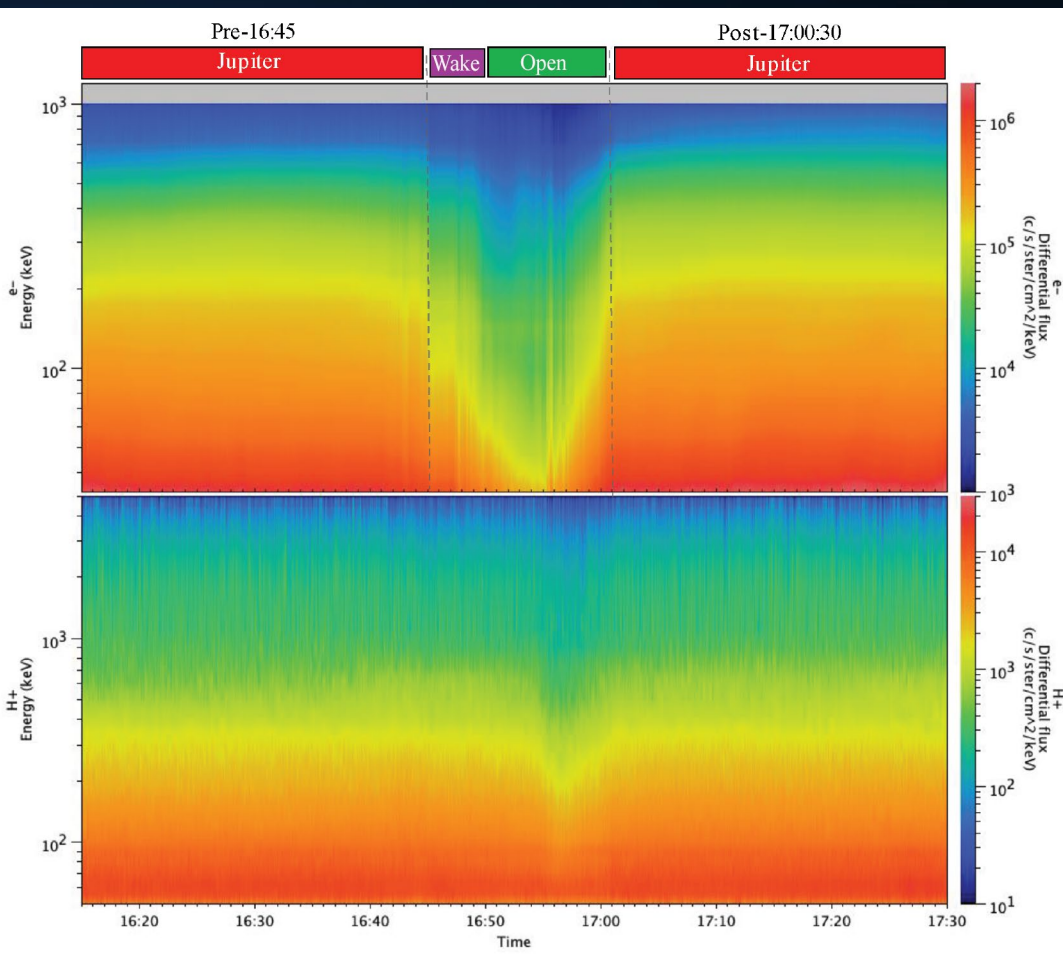


Figure 1. Data from the Juno charged particle instrument (JEDI). X-axis shows time and y-axis is energy. The color bar shows particle intensity. Top panel is electrons and bottom panel shows protons.