

Variability in the energetic electron bombardment of Ganymede

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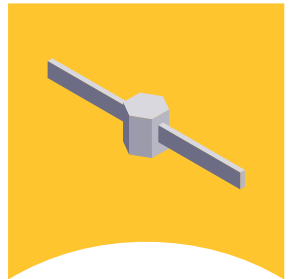
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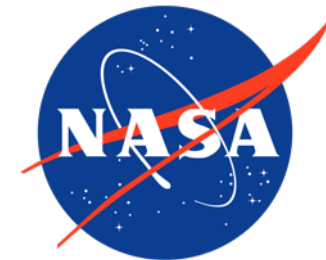
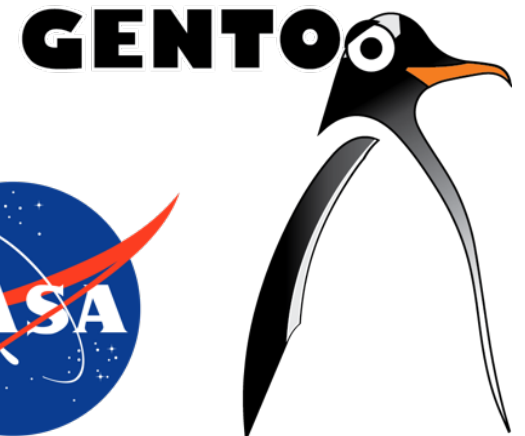
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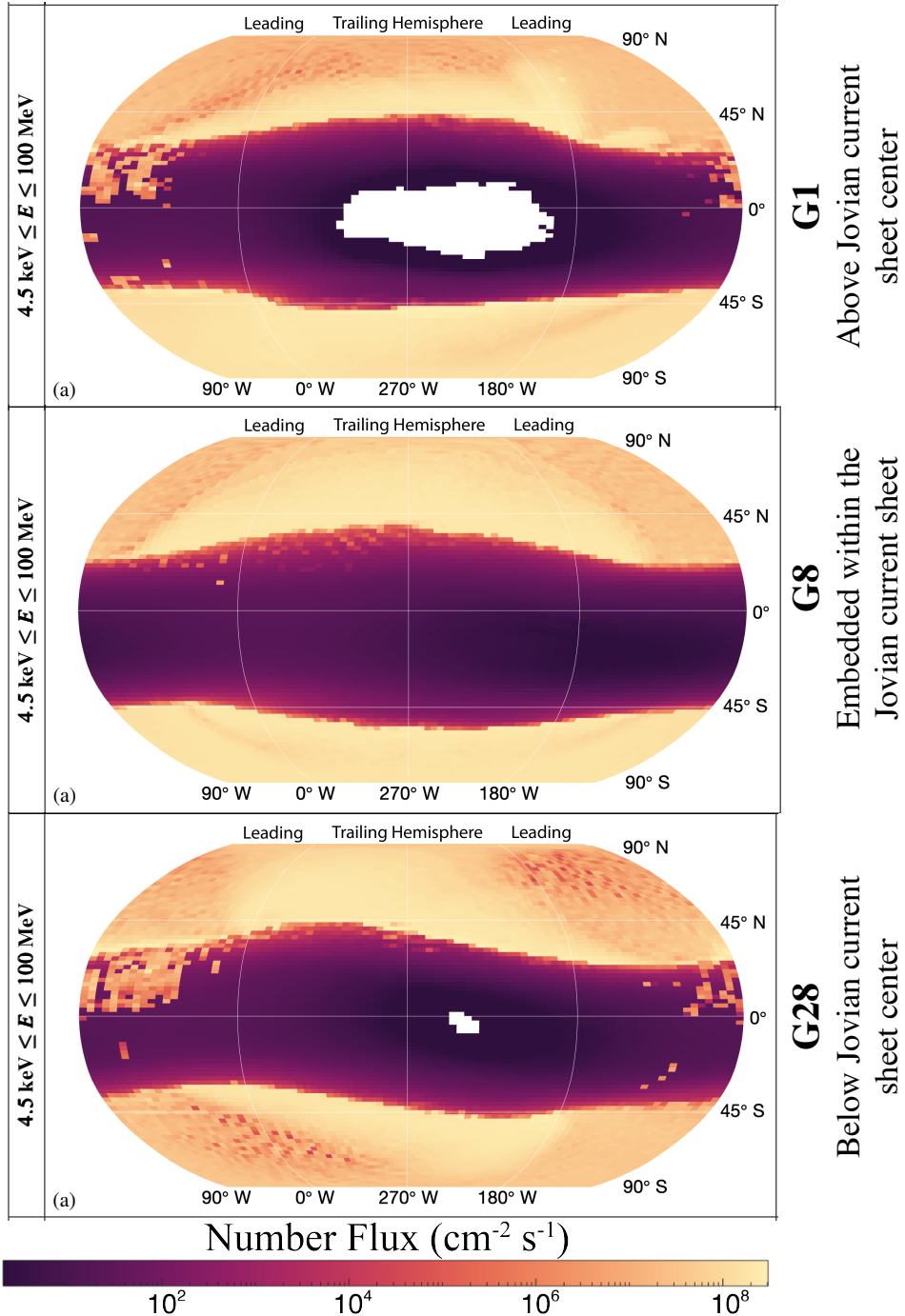
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G1
Above Jovian current sheet center

G8
Embedded within the Jovian current sheet

G28
Below Jovian current sheet center

This study:

- Investigates how energetic electron surface fluxes and precipitation patterns are affected by Ganymede's non-uniform electromagnetic environment (intrinsic dipole and plasma interaction)
- Studies how the fluxes vary as a function of distance to the center of Jupiter's magnetospheric current sheet
- Constrains electron fluxes averaged over large timescales
- uses existing hybrid model results ([Fatemi+ 2016](#)) to represent electromagnetic fields near Ganymede
- Applies the GENTOO test-particle model ([Liuzzo+ 2019a](#); [2019b](#)) to propagate energetic electrons through these fields

