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Comparative Magnetospheres

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Throughout the Solar system, we see the same magnetospheric processes repeated in different combinations. Thus in some planets atmospheric interactions with the solar wind define the style of magnetosphere, whereas in others it is the co- rotation of the magnetosphere with a strong planetary magnetic field. The Session will contain observationally and theoretically based talks.

The field is currently being given a huge stimulus by the new data from Saturn, and Mars and this will continue with missions expected to arrive at the Moon, Venus and Mercury, as well as comet and asteroid encounters.

A wide range of important processes include:

- Solar wind and rotation-driven magnetospheres,
- Magnetospheric times and spatial scales much shorter or larger than at Earth
- Magnetised and Unmagnetised bodies
- Particle acceleration and reconnection
- Magnetopause and bow shock
- Sputtering Atmospheric escape and Ion Pickup
- Dust-plasma interactions Interaction of plasma with moons
- Magnetospheres with no ionosphere

The Aim of the introduction is to emphasize that there is an enormous diversity of magnetospheric styles, even though underlying processes are often the same.

Keywords: Planets; Magnetospheres

	Dipole	S/W Driven	Co-Rotation	Induced Mag'pher	Mini Mag'phere	Inner Mag'phere	S/W at Surface	Ionosphere	Satellite Interactions	Ring Interaction
Earth	x	x	x			x		x		
Moon					x		x			
Mars		x	x	x	x			x		
Venus				x				x		
Mercury	?	x					?			
Jupiter	x		x			x		x	x	
Saturn	x		x			x		x	x	x
Comet		x		x				x		