Cassini's Ring Grazing and Grand Finale Orbits

A1

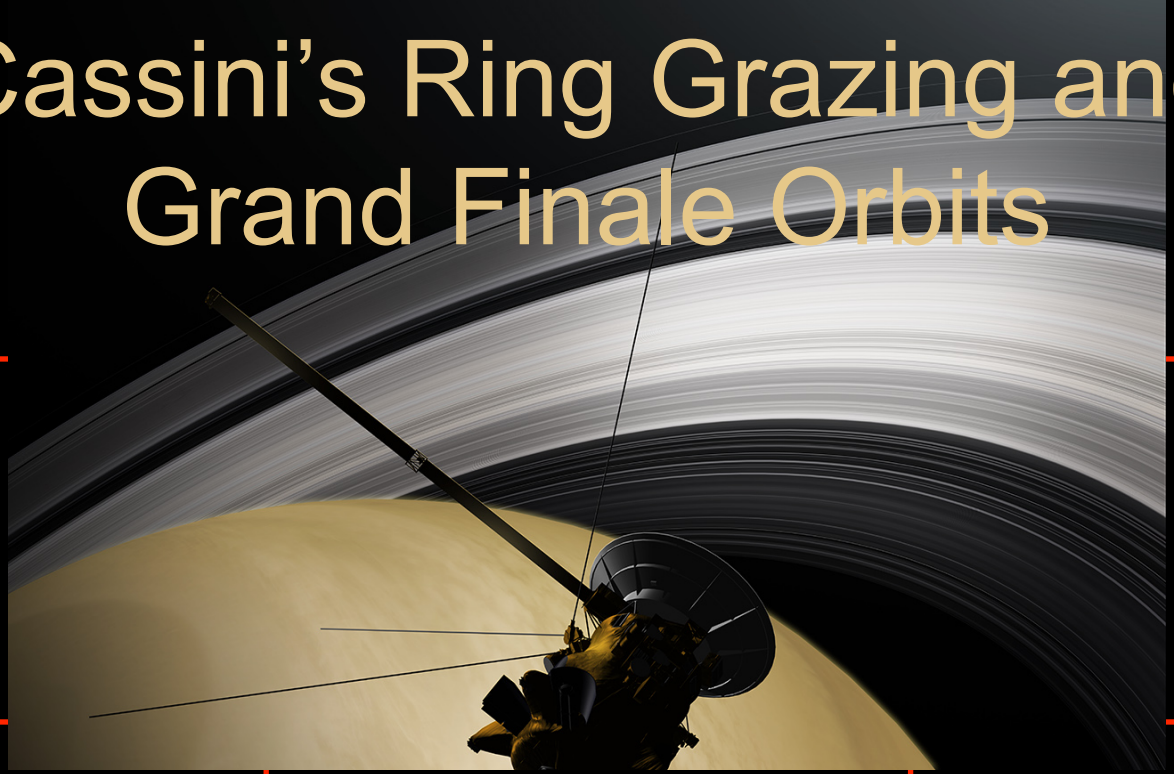
C1

A2

C2

A3

C3



Dr. Scott G. Edgington
Jet Propulsion Laboratory/Caltech

B3

American Geophysical Union
December 12-16, 2016

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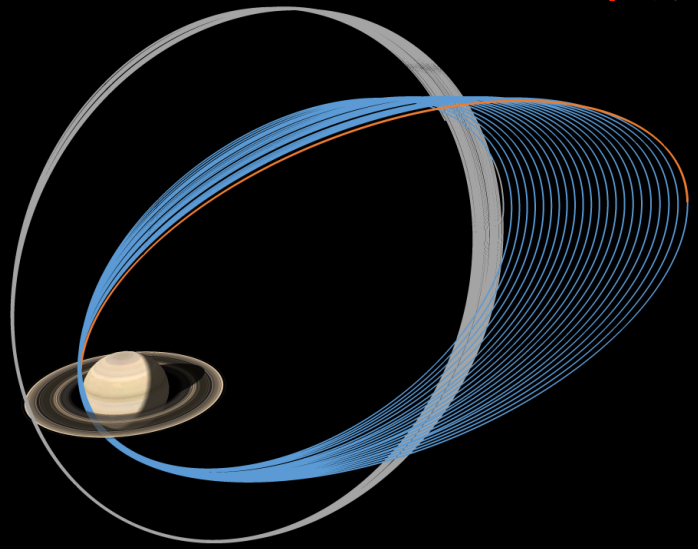
A Daring Set of Orbits

A1

B1

C1



B2

C2

A3

B3

C3

20 Ring Grazing orbits
22 Grand Finale orbits
0.5 Impact orbit

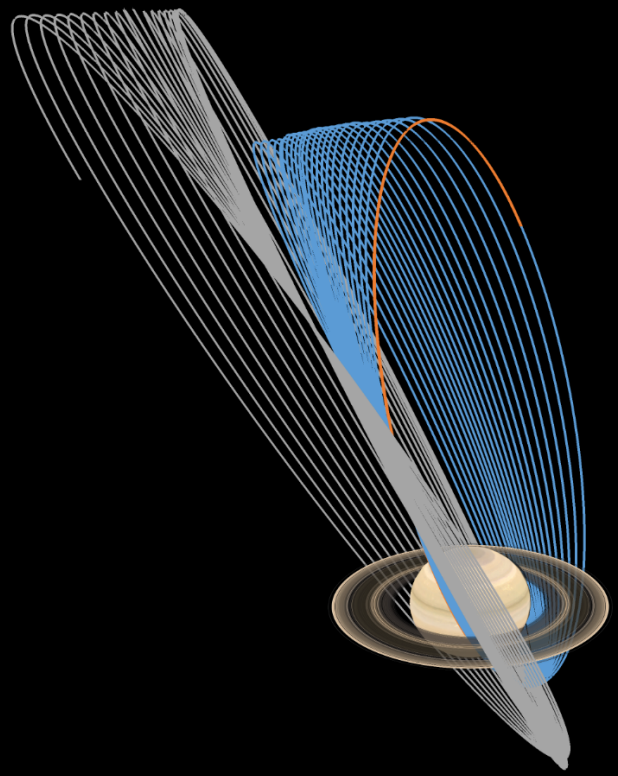
Ring Occultations

A1

B1

C1

A2



View from Earth

C2

A3

C3

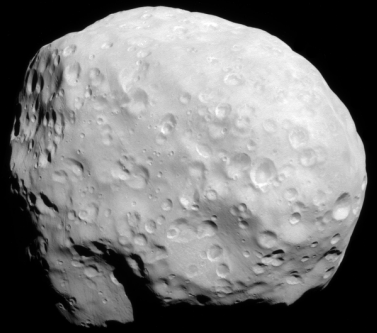
Ring Moons

A1

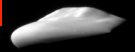
B1

C1

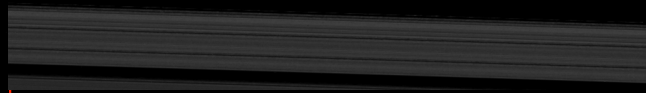
Epimetheus



Atlas



Prometheus



A3

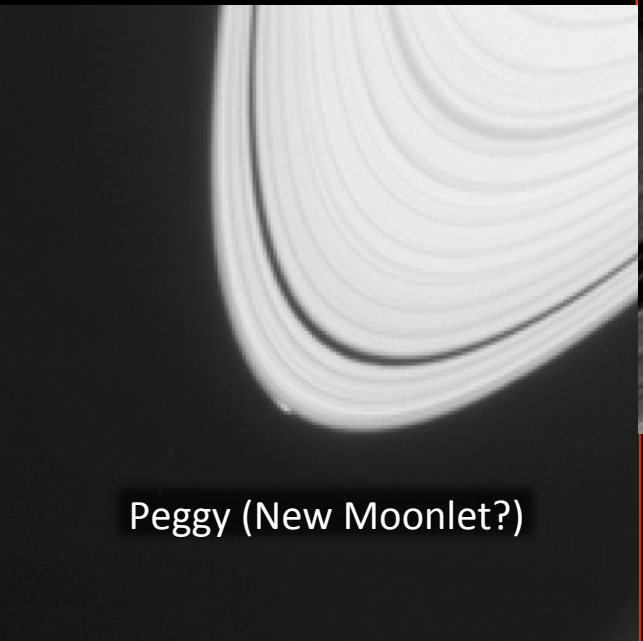
C3

High Resolution Imaging of Ring Structures

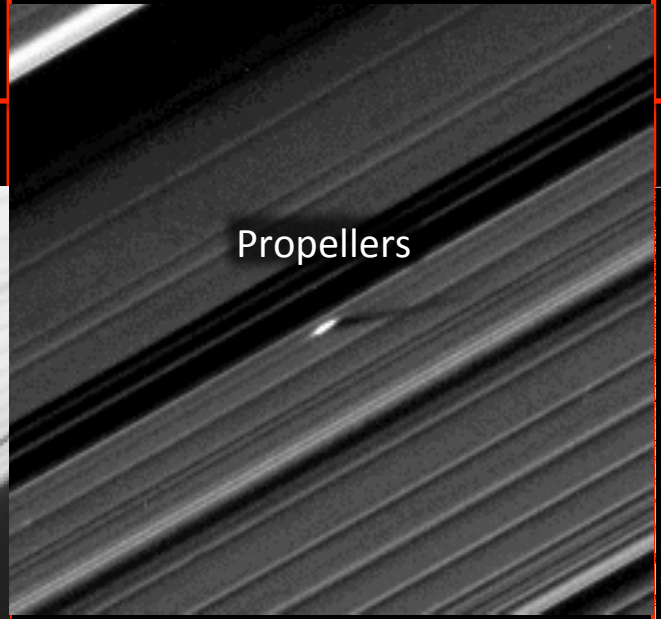
A1

B1

C1



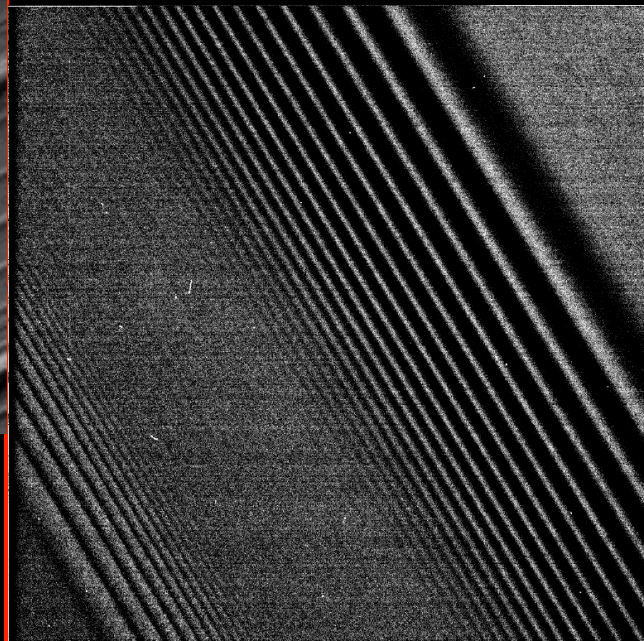
Peggy (New Moonlet?)



Propellers

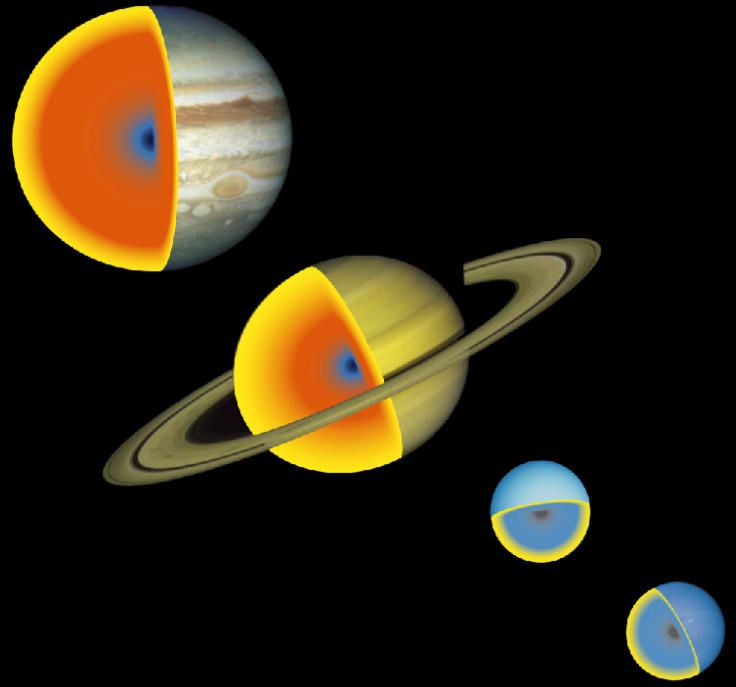
B3

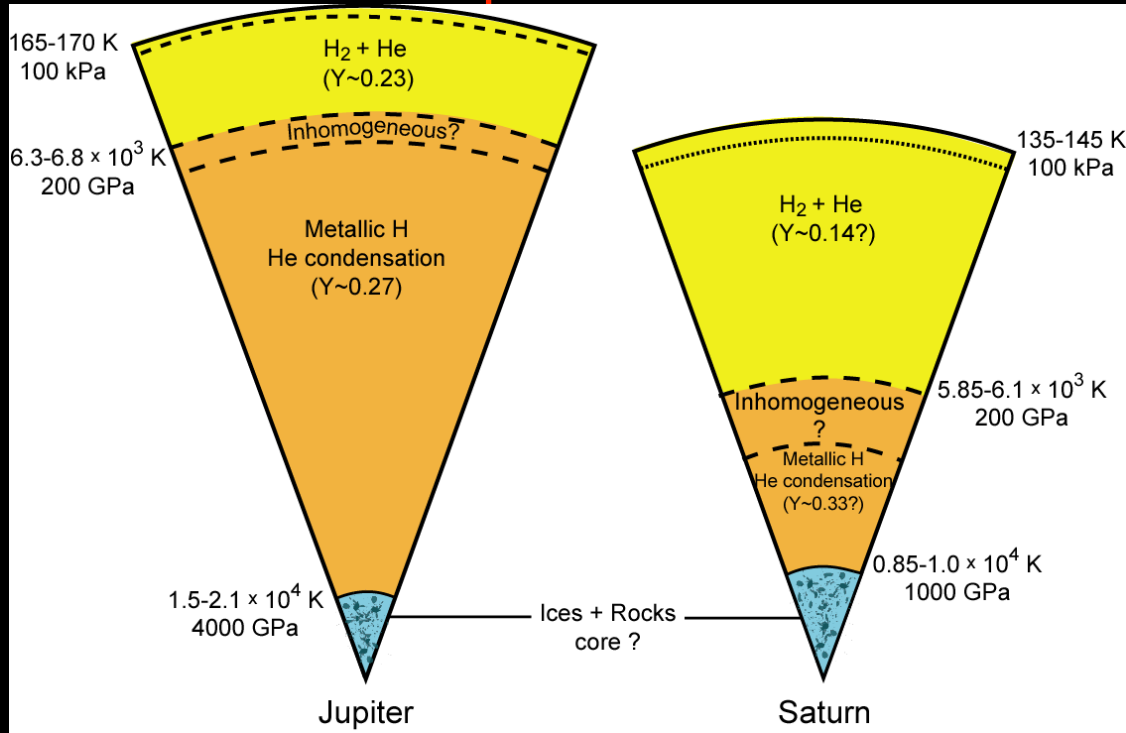
Density Waves



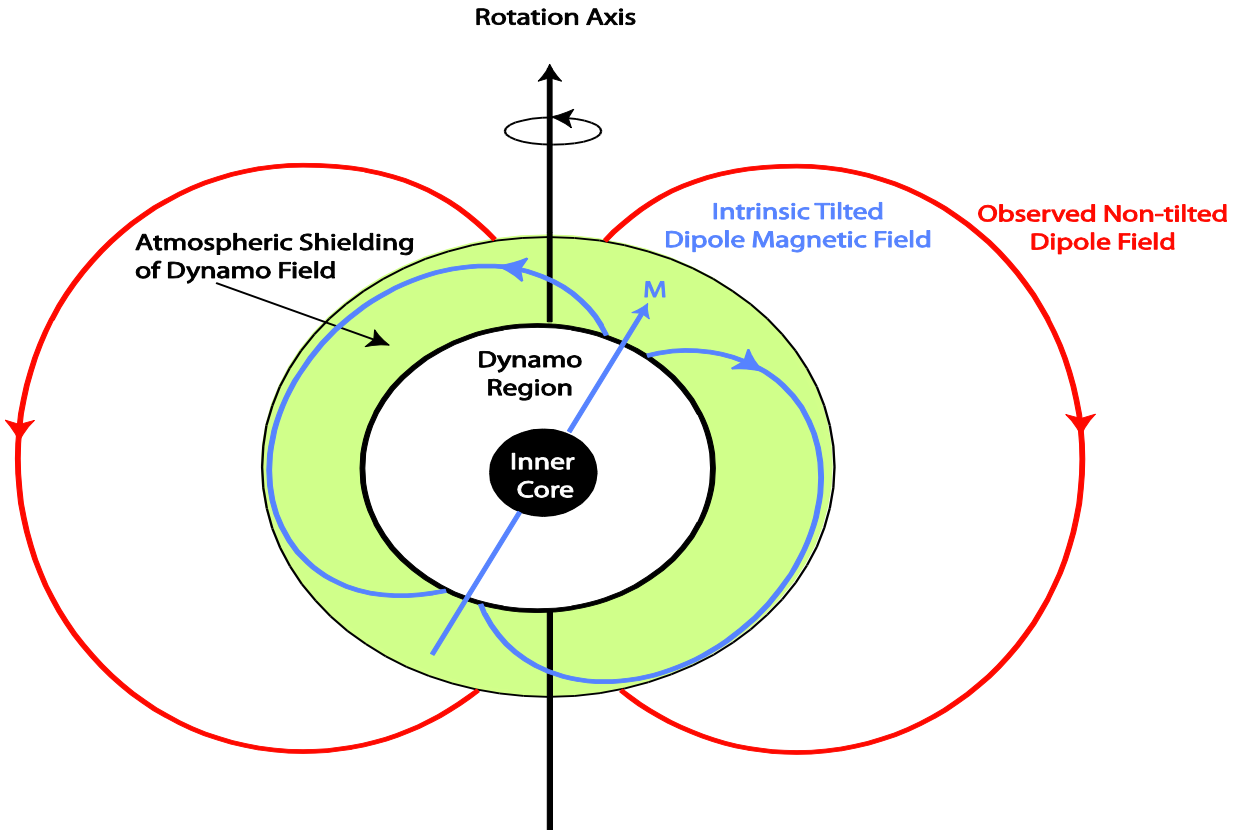
Gravity: Internal Structure and Deep Winds

A1 B1 C1





Magnetic Field: Interior and Rotation Rate

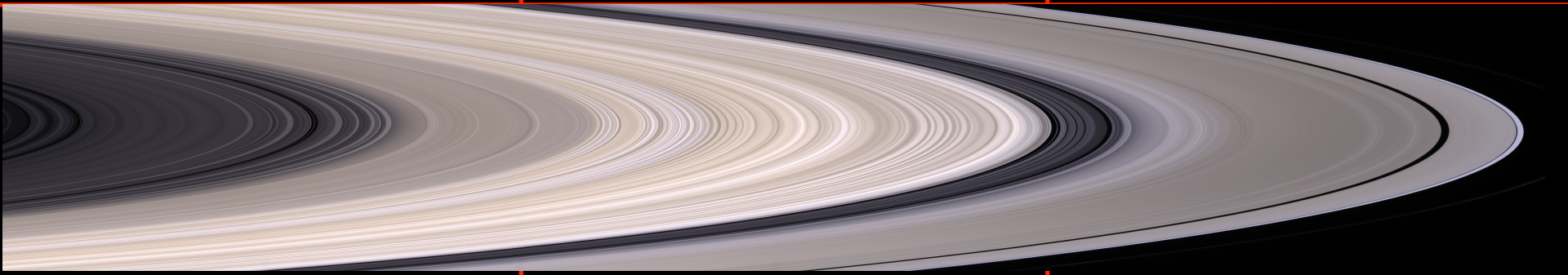


Ring Mass Determination

A1

B1

C1



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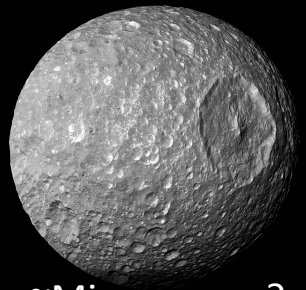


~Mimas mass?

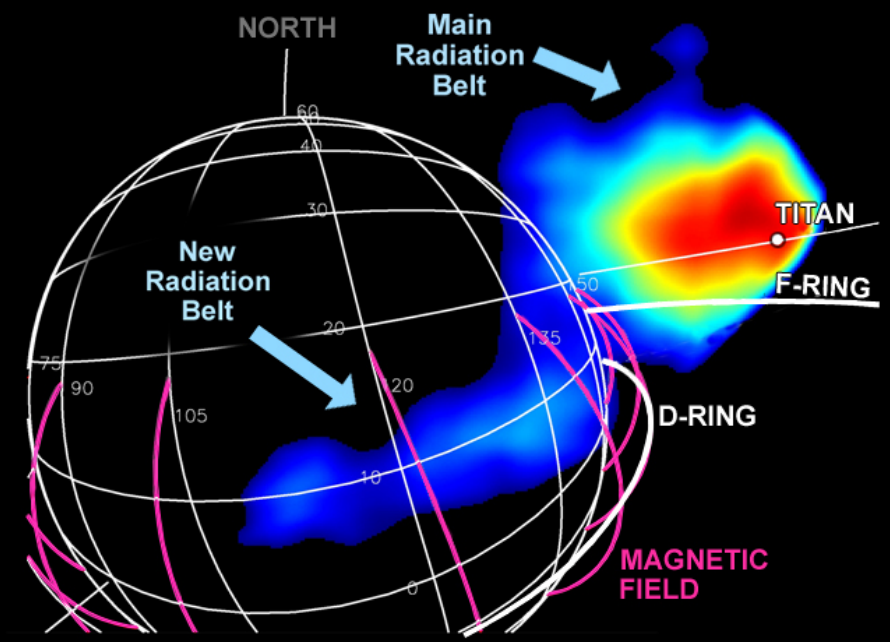
C3

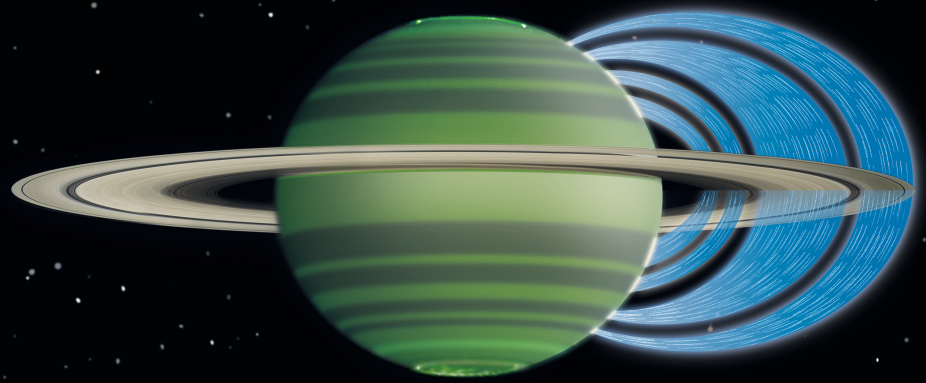
Plasma and Dust Environment

A1

B1

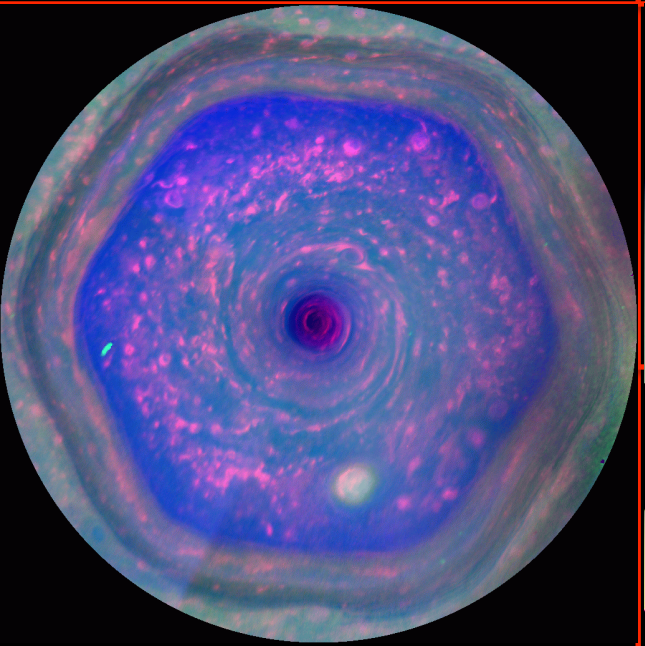
C1





High Resolution Imaging of Saturn

A1



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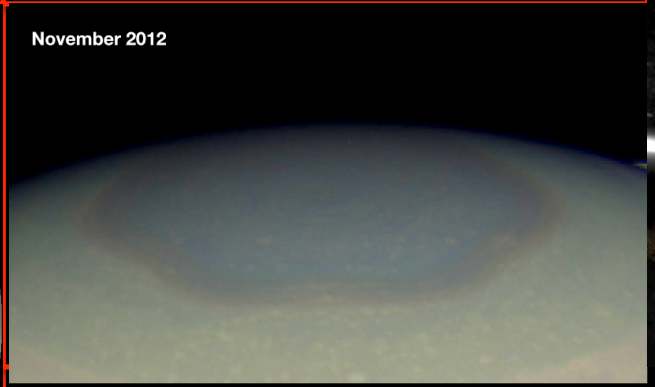
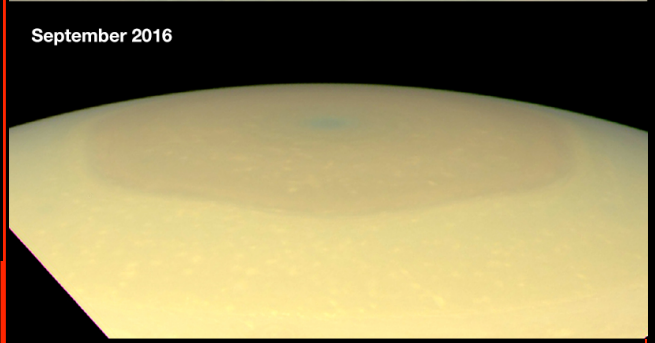
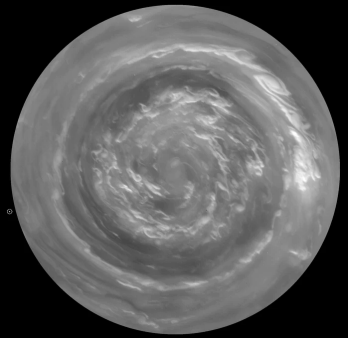
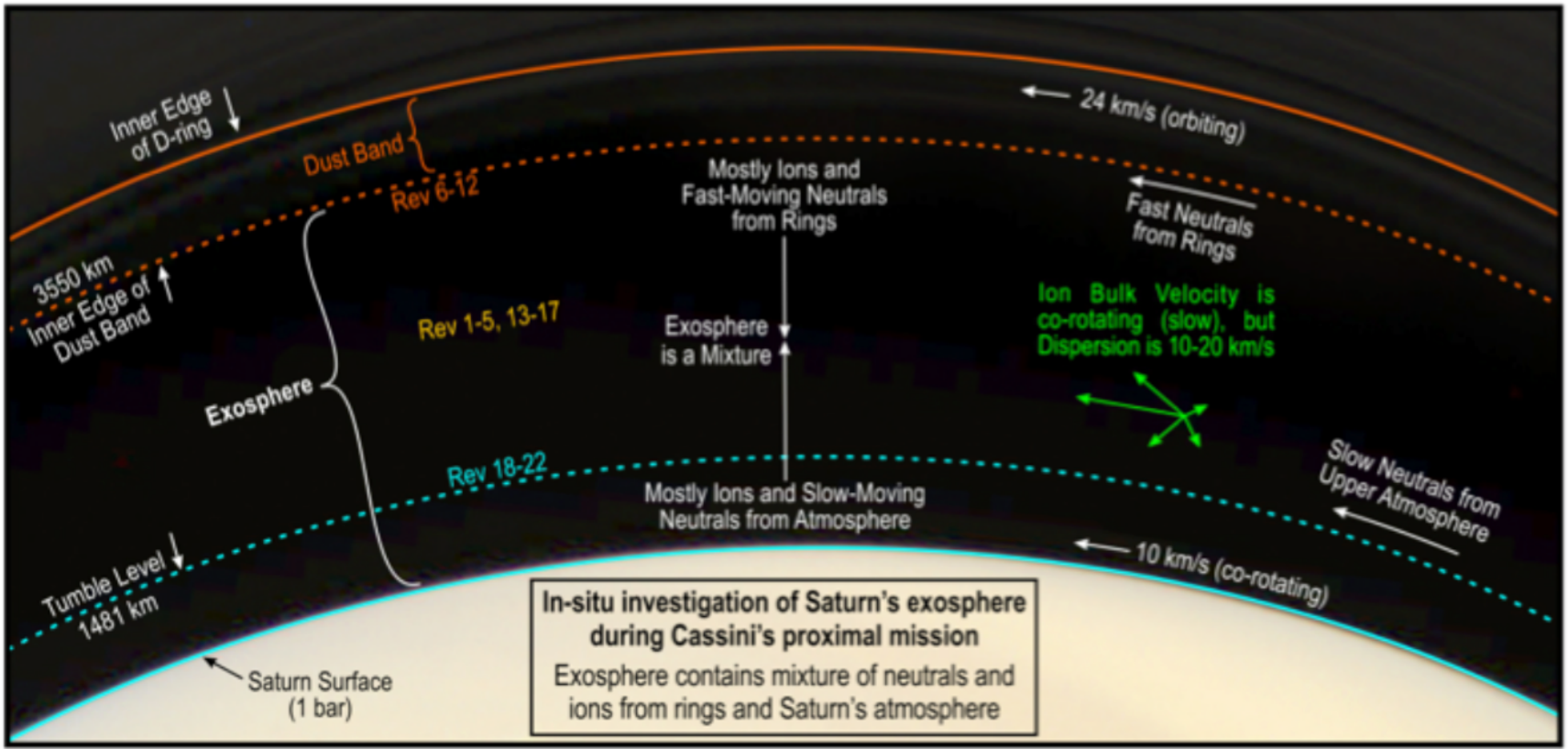




C1



In-Situ Sampling of the Atmosphere

A1 B1 C1