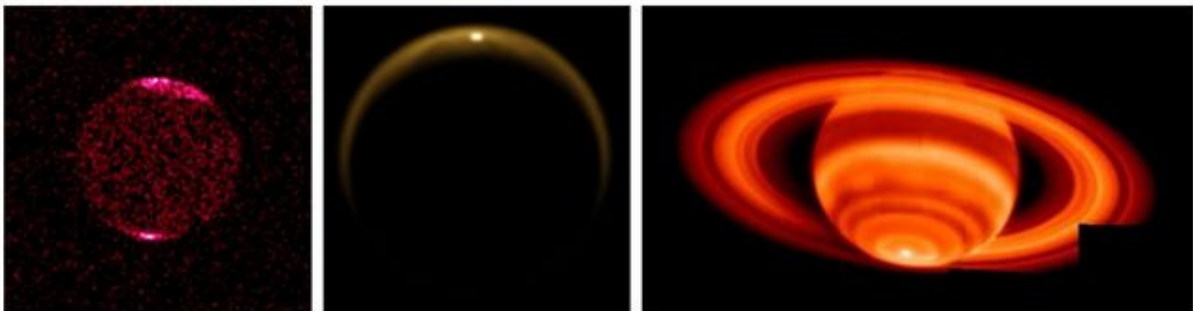


Polar "hot spots" are caused by Birkeland currents

The now accepted theory of sun-Earth Birkeland currents, what astro-physicists call "magnetic ropes" or "flux ropes",^[1] provides a mechanism to explain polar "hot spots" on planets throughout the solar system.

CHANDRA x-ray data of Jupiter from 2000,^[2] the Cassini image of Titan in infrared from 2009,^[3] and Keck Observatory's temperature data from Saturn in 2004,^[4] all show increased energy in "hot spots" at the pole. Birkeland currents entering planets through the poles (that power planetary magnetic fields) is a mechanism that fits with the data.



The only other possible explanation is the theory of polar holes, with energy radiating from the planet core.

Synapses

1. [Magnetic Rope observed for the first time between Saturn and the Sun - UCL](#)
2. [Jupiter Hot Spot Makes Trouble For Theory - CHANDRA](#)
3. [Saturn's Bull's-Eye Marks Its Hot Spot - NASA](#)
4. [Reflection of Sunlight off Titan Lake - NASA](#)