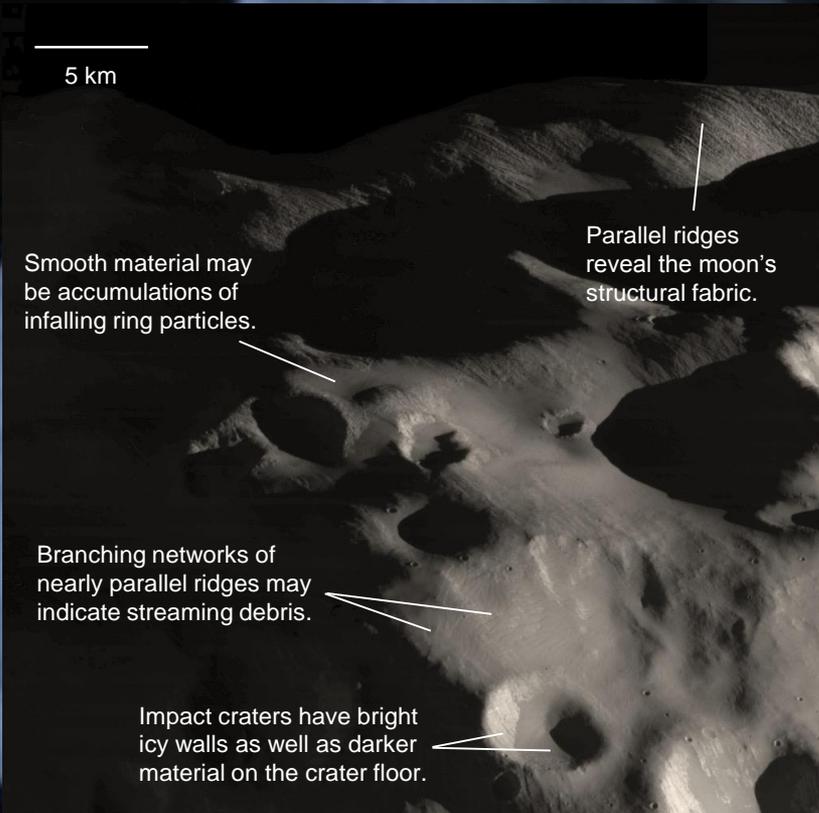




Saturn's Moon Epimetheus Turns a Tortured Face to Cassini

On January 30, 2017, the Cassini spacecraft flew past Epimetheus, which revolves in the gap between Saturn's F and G rings along with its co-orbiting moon, Janus. Cassini approached to within 3593 miles (5781 km) of Epimetheus' surface, about the distance from Hawaii to Kansas. That was close enough to capture detailed images that reveal a bizarre, never-before-seen geological feature on a small icy satellite—a network of branching, narrow ridges that are nearly parallel to each other in some places.



What does it mean? Data gathered about Epimetheus may support the ultimate goal of understanding how moons form and evolve over time. Learning how ring particles interact with the surfaces of Saturn's many moons has become an important focus of study.

Of special interest is what happens to particles ejected by impact cratering. How the particles form dust rings, and how that material eventually returns to the icy, irregular surfaces of these moons as debris is not fully understood.

Ring/satellite interactions are important because they may mimic some processes that occur during the early stages of planet formation around the Sun and other stars. Analysis of images such as these enables scientists to directly observe these processes.

Cassini's cameras enabled scientists to see fascinating patterns on the surface of Epimetheus, left. Blue background image shows the moon's irregular shape.