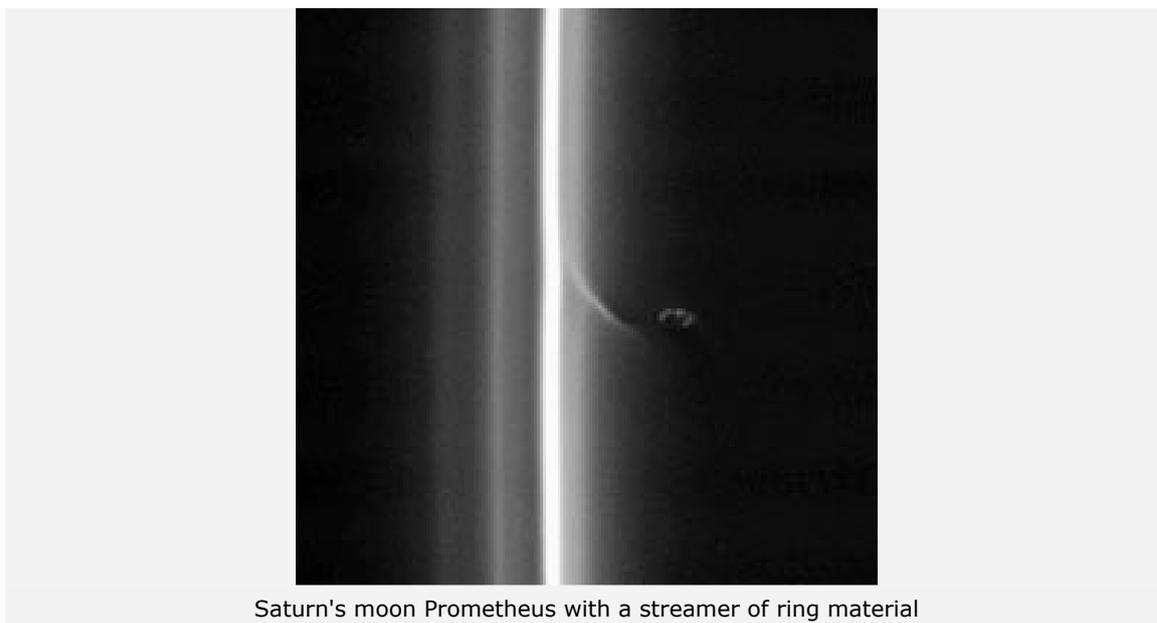

News archive until 2007

Toying with Gravity

17 November 2006



Saturn's moon Prometheus with a streamer of ring material

This view shows Saturn's moon Prometheus with a streamer of ring material it has created in the inner edge of the F ring. Prometheus comes close to the inner edge of the ring once per orbit, perturbing the ring particles there. The moon's gravity tugs on the ring particles and the disturbed particles, now pulled into orbits slightly closer to Saturn and therefore faster, shear out during successive orbits and create long streamers as seen here.

In 2009, the moon's orbit is expected to carry it repeatedly into the F ring core, an event that ring scientists are eagerly awaiting. Prometheus is 102 kilometres across.

The image was taken in visible light with the Cassini spacecraft narrow-angle camera on 16 October 2006 at a distance of approximately 1.8 million kilometres. Scale in the original image was 11 kilometres per pixel. The image has been magnified by a factor of two.

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