

Turning up Jupiter's Thermostat

What is the science question? How much internal energy is Jupiter radiating? Can we use Cassini data to update the previous measurements made in 1981 using data from Voyager and Pioneer?

What were your findings? Cassini data shows that Jupiter is emitting 38% more heat than we previously thought (see diagram to the top right).

What was the impact? This is a big change! Measuring the heat flow is an important means to learn about a planet's internal structure, so we now need to change our understanding of the interior of Jupiter.

Why does it matter to non-scientists?

Understanding how planets form and evolve is a key to understanding the origin of our entire solar system, including the Earth. Jupiter is also a good template for studying exoplanets in other solar systems.

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