

## Reviewing the Planetary Status of Pluto

### What is the issue?

\n\n

There has been a recent debate among the astronomical community to decide on whether the Pluto is a planet or not.

\n\n

### Why has the debate about Pluto being a planet been exhumed all over again?

\n\n

\n

- The immediate provocation was a Johns Hopkins University scientist, Kirby Runyon, and his poster last month at a scientific conference.

\n

- His presentation argued that the definition of what constitutes a planet be changed.

\n

- Dr. Runyon and poster co-authors (including Alan Stern, a senior astronomer who'd vigorously opposed Pluto's demotion a decade ago) were part of the science team on the New Horizons mission to Pluto, operated for NASA by the Johns Hopkins University Applied Physics Laboratory.

\n

- In the summer of 2015, the **New Horizons spacecraft became the first to fly by Pluto**, passing within 8,000 miles and sending back the first close-up images ever of Pluto.

\n

- These factors combined to whet interest in the revivification of Pluto's planetary status.

\n

\n\n

### What's Runyon's argument and will that once again mean nine planets?

\n\n

\n

- **The International Astronomical Union, in 2006, laid down three criteria for a rocky body to be planet: it must orbit the sun, it must be round, the body and its satellites must “orbit in a clear path around the sun”.**

\n

- It's the last bit that buried Pluto, as many other asteroids and planets, some bigger than Pluto, were found in its orbital neighbourhood.

\n

- Dr. Runyon and co-authors proposed that the offending third clause be deleted. To be sure, there isn't a novel scientific argument for Pluto's case that hasn't already been made.

\n

- Pluto being made a planet again, according to him, would mean that “the public would again fall in love with planetary exploration.”

\n

\n\n

### **What are the consequences of accepting the modified definition?**

\n\n

\n

- Along with Pluto being upgraded from its current “**dwarf planet**” status, nearly 100 other celestial bodies in the solar system could also become planets.

\n

- The celestial bodies include Europa, a moon of Jupiter, and our very own moon.

\n

- It also means that there will be nothing special about the existing eight planets and that, according to critics of Dr. Runyon, would offer a distorted picture of the solar system.

\n

\n\n

### **Can there be finality to this debate?**

\n\n

\n

- **The International Astronomical Union arrived at their decision to demote Pluto after two years of debate and a proposal to a ‘Planet Definition’ sub-committee.**

\n

- This was then put to a vote, with 237 astronomers voting for and 157 against.

\n

- There's no report yet of the IAU moving to reconsider their position.

\n

- Dr. Stern has argued that most of these astronomers were not 'planetary scientists.' Those who are convinced, proceed with their science as if Pluto is the planet from pre-2006 textbooks.

\n

\n\n

\n\n

**Source: The Hindu**

\n

