Reviewing the Planetary Status of Pluto

What is the issue?

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

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

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- The immediate provocation was a Johns Hopkins University scientist, Kirby Runyon, and his poster last month at a scientific conference.
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- His presentation argued that the definition of what constitutes a planet be changed.
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- 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.
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- 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.
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- These factors combined to whet interest in the revivification of Pluto's planetary status.
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What's Runyon's argument and will that once again mean nine planets?

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- **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".**
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- It's the last bit that buried Pluto, as many other asteroids and planets, some bigger than Pluto, were found in its orbital neighbourhood.
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- 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.
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- Pluto being made a planet again, according to him, would mean that "the public would again fall in love with planetary exploration."
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What are the consequences of accepting the modified definition?

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- Along with Pluto being upgraded from its current **"dwarf planet"** status, nearly 100 other celestial bodies in the solar system could also become planets.
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- The celestial bodies include Europa, a moon of Jupiter, and our very own moon.
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- 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.
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Can there be finality to this debate?

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

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- There’s no report yet of the IAU moving to reconsider their position.
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- 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.
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Source: The Hindu

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