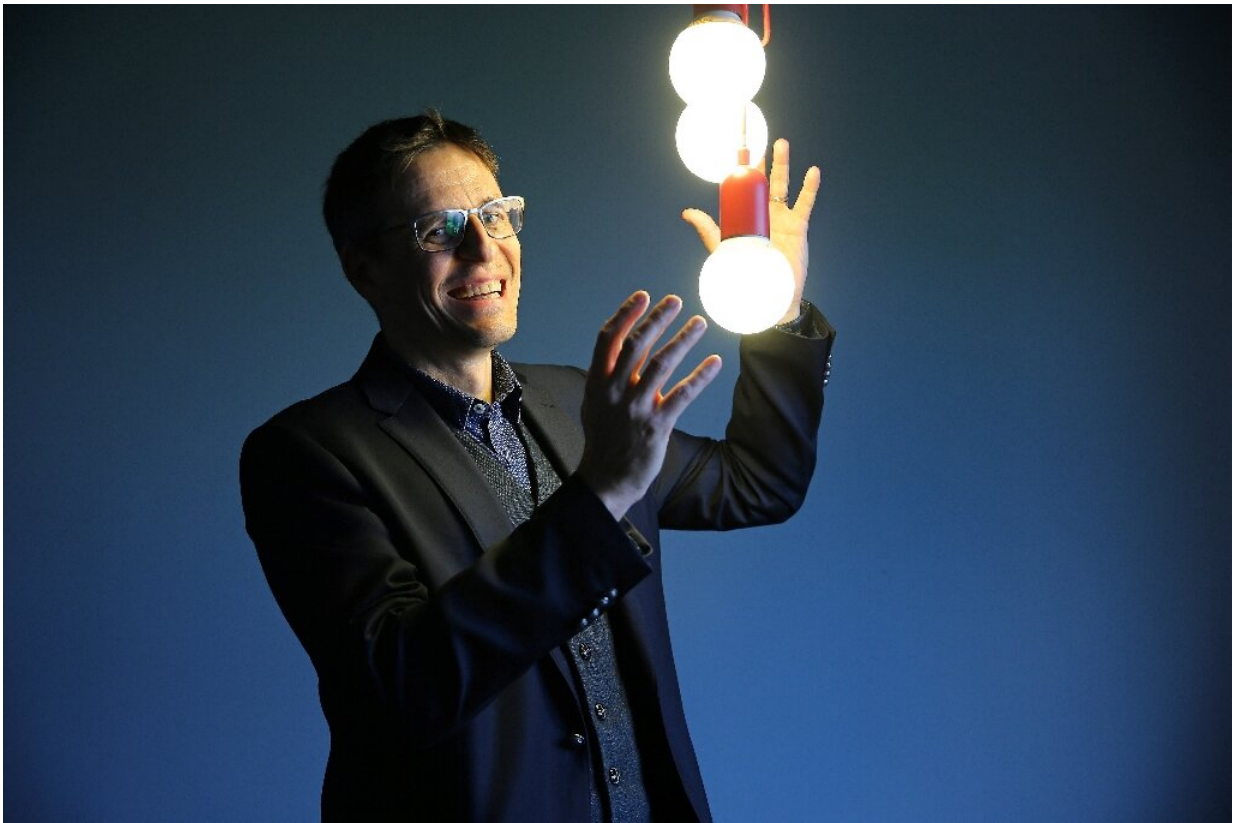


From 'weirdo' PhD stargazer to Nobel Physics laureate

October 8 2019, by Patrick Galey



Swiss astronomer Didier Queloz on Tuesday shared the Nobel Prize in Physics 2019 with compatriot and colleague Michel Mayor and Canadian-American cosmologist James Peebles

As a student astronomer scanning the skies with homemade instruments

a quarter of a century ago, Didier Queloz spent months doubting the data that led him to an inescapable conclusion: he'd just discovered the first planet outside Earth's solar system.

The Swiss scientist had spent much of his PhD research refining techniques to detect so-called exoplanets, which until one fateful night in October 1995 had previously only existed in the realm of science fiction.

Queloz and his colleague Michel Mayor, who on Tuesday [were awarded the Nobel Prize for Physics](#) for their pioneering work, had already overcome a number of obstacles in their galaxy-wide search.

They'd painstakingly constructed their own equipment at the Haute-Provence Observatory at the foot of the French Alps, allowing them to detect tiny changes in the frequency of light emitted by [stars](#) they suspected were being orbited.

Now they had another problem. The planet they'd discovered, known as 51 Pegasi b, was too big.

"We were as surprised as everybody to find a planet because the planet that we found was absolutely bizarre and it's not at all the way you would have expected a planet to be," Queloz told AFP Tuesday.

"I remember many discussions I'd had with Michel and trying to demonstrate that it was not a planet but in the end we always circled back and said that that's the only explanation."

The [exoplanet](#) was roughly the size of Jupiter, yet was more than 20 times closer to its star than Earth is to the Sun.

Such dimensions baffled the team.

Sara Seager, planetary scientist and astrophysicist at MIT, who was a grad student at Harvard when Mayor and Queloz made their discovery, recalled a "huge controversy" at the time.

Citation: From 'weirdo' PhD stargazer to Nobel Physics laureate (2019, October 8) retrieved 23 April 2024 from <https://phys.org/news/2019-10-weirdo-phd-stargazer-nobel-physics.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.