

## **Pauli Principle in the Interior of Pulsars and Fundamental Issues of Elementarity**

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### **Abstract**

Pulsars were discovered in 1967 by Jocelyn Bell and Anthony Hewish. They are remarkable objects in the sky from which blips (pulses) of radio waves are detected by radio telescopes. The pulses are so regular in frequency that it was wondered in the immediate aftermath of their discovery whether they were the much awaited signals from an alien civilization! But soon, through a combina-

tion of further observation and theory, a more pedestrian explanation emerged that a Pulsar is just a giant rotating nucleus. After a brief introduction to Pulsars and their formation, the talk will focus on what is likely to be their internal composition and why they are also called Neutron Stars. In discussing their Equation of State, we will run into some very fundamental concepts of elementarity, which are very interesting in their own right.

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