

Celebrating 75 Years of the Nuclear Shell Model and Maria Goeppert-Mayer



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Maria Goeppert Mayer –From Göttingen to the Nobel Prize in Physics

Friday, July 19, 2024 11:00 AM (1 hour)

The talk will present an overview of Maria Goeppert-Mayer's life and her accomplishments in physics. Being trained in quantum theory at the famous Göttingen school of Max Born, she became friends with many of the most influential physicists of the early 20th century. Albeit, as a woman and the wife of Joseph Mayer, she was considered unemployable in the United States, after her emigration from Germany. Nevertheless, she continued working as unpaid lecturer and made several substantial contributions to atomic and molecular physics. Collaborating with Edward Teller during World War II, she shifted her focus to nuclear physics, particularly to the field of nuclear astrophysics. Her research on the correlation between stellar abundances and the numbers of protons or neutrons in a nucleus, led her to the identification of magic numbers. Despite being dismissed by many physicists, her exploration into "numerology" ultimately led to the recognition of the shell structure of the nucleus. In 1963, she was honored with the Nobel Prize for her groundbreaking discovery.

Presenter: WIESCHER, Michael (University of Notre Dame)

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