

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Dr. Chary Rangacharyulu,  
Physics and Engineering Physics

**TOPIC:** *Nuclear Fusion for Stars and Sustainability*

**DATE:** Tuesday November 5th, 2024

**TIME:** 3:30-4:30 p.m.

**PLACE:** *Physics 103*

## **Abstract:**

Since antiquity, mankind has been trying to fathom the dynamics of physical universe and imitate it to reap various benefits. Gazing at stars, wondering about their movements and pondering about the sources of energy which drive them has been among the pastimes. In the early 20<sup>th</sup> century, nuclear reactions were identified as the main source of stellar nucleosynthesis. Since then, we have been busy to attempt the same phenomena as sources of sustainable energy. Clearly, not all sources of stellar synthesis are useful on this planet. In this talk, I will outline some riddles not yet understood in stellar nucleosynthesis and elaborate a bit on some challenges of nuclear transmutation, commonly known as nuclear fusion, in our quest of energy for the sustainability.