

# WICHITA STATE UNIVERSITY

*Physics Seminar Presents Our Speaker:*

## **Caleb Gimar**

Wichita State University

### “Simulation Design Study for a Solar Neutrino Spacecraft Detector”

Abstract: Our Sun's nuclear furnace remains poorly understood, hidden beneath the Sun's outer layers. This presentation outlines a new solar-orbiting spacecraft concept which could observe solar neutrinos from the core, giving an unprecedented view of the processes within. Following the success of the Parker Solar Probe, this spacecraft could travel very close to the Sun where the neutrino flux is much higher than on Earth. Of particular note in this presentation will be the results of recent computer simulations of this neutrino detector spacecraft. Additionally, information will be given about the physics of the Sun and existing solar neutrino experiments.

#### **Day & time:**

Wednesday, May 8, 2019

2:00 p.m., 128 Jabara Hall

Refreshments & Discussion Afterwards

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