

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Dr. Stanley Greenspoon, Capilano University

**TOPIC:** *Are we alone? The Search for Extrasolar Planets and Extraterrestrial life.*

**DATE:** Tuesday, February 23, 2016

**TIME:** 4:30-5:30pm.

**PLACE:** Rm. 175, Physics Building

## **ABSTRACT:**

Beginning with the achievements of Copernicus and Galileo in the 16th and 17th centuries, the Earth lost its privileged status in our Solar System. Subsequently, the Sun was found to be a rather ordinary star among the estimated 200 to 400 billion stars in our Milky Way galaxy, which itself is now known to be one of at least 100 billion galaxies in the Universe. While it has long been assumed that there must be planets in orbit around other stars, it was not until 20 years ago that an extrasolar planet orbiting a Sun-like star was confirmed to exist, the first of almost 2000 such exoplanets discovered since then. I will discuss, and in some cases demonstrate, the techniques used to detect exoplanets and measure their properties, which exploit phenomena from a variety of areas familiar to physics students, ranging from classical mechanics to general relativity. The criteria for the presence of life on exoplanets will be discussed, as will the issues involved in our being able to gather data conclusively proving life's existence.

Coffee and Cookies will be served in the Physics lounge at 3:00 pm. for those attending the seminar.