



The University of Western Ontario
DEPARTMENT OF PHYSICS AND ASTRONOMY

2017 Canadian Association of Physicists (CAP) LECTURE TOUR

Date: THURSDAY, 16th February 2017
Time: 3:30 p.m.
Location: Physics & Astronomy Classroom 106

Dr. Stanley Greenspoon

Capilano University
North Vancouver, BC

“What's New in the Search for Exoplanets and Extraterrestrial Life”

ABSTRACT

The detection of the first planet outside our solar system in 1995 ushered in a period of intensive work directed at not only detecting more such exoplanets, of which well over 3000 have now been confirmed, but also aimed at determining the properties of exoplanets and their atmospheres, as well as exploring the variety of planetary systems. A principal goal of this research has been to make progress towards answering the question wondered about since antiquity, “are we alone?”. I will survey some of the more interesting recent discoveries in exoplanet research, much of which is based on phenomena from areas familiar to physics students, ranging from classical mechanics to general relativity. The criteria for inferring the presence of extraterrestrial life will be discussed, as will the issues involved in our being able to gather data confirming its existence. In addition, I will survey some of the plans proposed for research in the near and distant future, including the launch of successors to the Hubble and Kepler space telescopes.

Short Bio of the Speaker:

Stanley Greenspoon earned his B.Sc. degree (Honours Physics) from McGill University and his M.Sc. and Ph.D. degrees from the University of Waterloo. In 2014, he retired from Capilano University in North Vancouver, B.C., where he had been a faculty member in the Physics Department since 1988 and chair of the Pure & Applied Sciences Division since 2006. Earlier in his career, Stan taught at a number of universities and colleges in Quebec, Ontario, and Newfoundland. When he was in his twenties, Stan served on the Secretariat of the United Nations in New York City as a science affairs officer, involved with the application of science and technology to development. His scientific interests, publications, and conference presentations have been in the areas of Statistical and Condensed Matter Physics, Astronomy, and Physics Education. From 2006 to 2014, Stan served as chair of the British Columbia Physics and Astronomy Articulation Committee, at which representatives from universities and colleges across the province meet to facilitate student transfer between institutions.