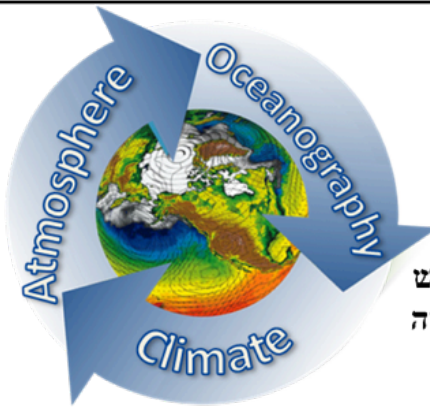


The Climate, Atmosphere and Ocean Seminar

Fredy and Nadine Herrmann
Institute of Earth Sciences,
Hebrew University of
Jerusalem



הסמינר באקלים,

אטמוספירה

ואוקיאנוגרפיה

המכון למדעי כדור הארץ ע"ש
פרדי ונדין הרמן, האוניברסיטה
העברית בירושלים

Thursday Apr.12 | 12:00 | room 102

Towards satellite retrieval of drop activation above cloud base

Prof. Leon Ofman

*NASA Goddard Space Flight Center and Catholic University of America; Visiting,
Department of Geosciences Tel Aviv University*

The solar radiative energy measured at the top of the atmosphere is nearly constant in the visible spectrum, providing climate

forcing, and allowing life to evolve and sustain on the Earth. However, the Sun's radiative output in the UV, extreme UV, and X-ray emissions is highly variable, modulated by the solar magnetic activity cycle of ~11 years. The connection between solar magnetic variability and Earth's climate was documented in the past centuries. Magnetized plasma from the Sun and energetic particles from Coronal Mass Ejections (CMEs) reach the Earth causing geomagnetic storms, and are the most important variable components of solar activity that determine space weather conditions. The geomagnetic storms adversely affect communications technology, satellites, and human activity in space. The goal of space weather research is to

characterize the plasma conditions and the energetic particle flux in the heliosphere using satellite data, and predict through physics-based models the variable conditions. Combining data from multiple satellite observations, such as NASA Solar Dynamics Observatory (SDO), the twin Solar Terrestrial Relations Observatory (STEREO) spacecraft, and early warning from satellites such as NOAA Geostationary Operational Environmental Satellites (GOES) together with advanced computational models enabled progress towards these goals. I will review the recent progress in this field and the near future solar missions.

הזמנה זו משמשת אישור כניסה לקמפוס גבעת רם בתאריך בו מתקיים הסמינר

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