



FLORIDA CENTER FOR ENVIRONMENTAL STUDIES
Charles E. Schmidt College of Science
Florida Atlantic University

ENVIRONMENTAL SCIENCE AND POLICY
DISTINGUISHED LECTURE SERIES

OUT OF EQUILIBRIUM IN A WARMING WORLD: GLACIERS AND SEA LEVEL CHANGE

TUESDAY, MAY 3, 2016, 3:00PM
HYATT REGENCY PIER SIXTY-SIX,
FORT LAUDERDALE



DR. ALEX GARDNER
NASA JET
PROPULSION
LABORATORY

Global mean sea level is rising in response to two primary factors: warming oceans and diminishing glaciers and ice sheets. If melted completely, glaciers would raise sea levels by half a meter, much less than that the 80 meters or so that would result from total melt of the massive Greenland and Antarctic ice sheets. That is why glacier contributions to sea level rise have been less studied, allowing estimates to vary widely. Recent advances in satellite altimetry and gravimetry now allow for precise estimation of global glacier contributions to sea level rise. Using these new techniques glacier loss was found to account for 30% of global mean sea level rise over the 2003-2014 period, an amount equal to the contribution from both ice sheets combined. Over the next century and beyond glaciers are expected to continue to contribute substantial volumes of water to the world's oceans, motivating continued study of how glaciers will respond to future changes in climate.

Dr. Alex Gardner is a Research Scientist at Caltech's Jet Propulsion Laboratory. He earned a B.Eng. in Civil Engineering from the University of Saskatchewan, a Ph.D. in Earth Sciences from the University of Alberta and was a NSERC research fellow in the Department of Atmospheric, Oceanic, and Space Sciences at the University of Michigan. He is a member of NASA's Sea Level Change and ICESat-2 Science Definition Teams. Alex studies the Earth's cryosphere (frozen Earth) with a particular focus on glaciers and their impacts on sea level rise and water resources. He is interested in how glaciers respond to natural and human induced forcings as well as how changes in the reflectivity of snow and ice modify the Earth's climate.

This lecture will take place at the Hyatt Regency Pier Sixty-Six, 2301 S.E. 17th Street, Fort Lauderdale, FL and will serve as the opening talk for the **3rd Sea-Level Rise Summit: Connected Futures from Alaska to Florida.**

For more information about the lecture, including directions and parking information, please visit our website at: <http://www.ces.fau.edu/outreach/dls>

To RSVP visit:
<http://www.ces.fau.edu/outreach/dls/rsvp.php>

The series is sponsored by FAU's Division of Research and the Florida Center for Environmental Studies.

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