



The University of Texas at San Antonio™

DATE:
January 24, 2020

TIME:
2:00-3:00pm

LOCATION:
BSE 2.102



NASA MIRO CAMEE

CENTER FOR ADVANCED MEASUREMENTS IN EXTREME ENVIRONMENTS

PRESENTS:

Laboratory for Remote Sensing and Geoinformatics (LRSG), Department of Geological Sciences

UTSA's NASA MIRO Center for Advanced Measurements in Extreme Environment (CAMEE) features a monthly seminar series where the Center faculty, students, and collaborators provide an overview of ongoing Center Research activities. The third NASA-CAMEE seminar in this series will be presented by the LRSG group (under supervision of Drs. Hongjie Xie, Steve Ackley, and Alberto Mestas) where Center students focus primarily on remote sensing and geospatial applications on cryosphere and hydrology under the warning climate. The aim of this research thrust is to characterize changes in polar sea ice and ice sheets, especially areas undergoing rapid change. In this seminar, two (Environmental Science and Engineering) PhD students Liuxi Tian and YoungHyun Koo will present their current research of using NASA's satellite-borne and air-borne altimetry data to study Antarctic sea ice thickness and will discuss the sea ice changes under the current warming climate and their implication.

The polar pack ice regions are highly sensitive to winds, air temperature, ocean temperature, salinity, and ocean currents. Satellite remote sensing data are essential for detecting changes in sea ice concentration, extent of the ice edge, and ice thickness. Liuxi will present her research results of sea ice thickness retrieval from IceBridge altimetry of 2013, IcePod altimetry of 2016, 2017, and then compare them with sea ice thickness from the ICESat 2003-2008 period. YoungHyun will present his recent study of using the newly launched (Sept 2019) ICESat-2 altimetry data for sea ice freeboard and thickness retrievals. He will also discuss the spatial representative of ICESat-2 observations (along its six tracks under one orbit) and ICESat-2 applications for ice production retrieval from polynyas.

More details of LRSG's Research: <http://www.utsa.edu/LRSG/>

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