SEMINAR ANNOUNCEMENT

Drones, planes, and satellites: Remote Sensing of Mountain Snow at Multiple Scales

Snow is a critically important resource; it modulates earth’s climate and acts as a vast and consistent natural water reservoir, providing the majority of freshwater supply for more than a billion people globally. These populations are predominantly downstream from midlatitude mountainous regions where seasonal snowmelt controls water availability, flood potential, agriculture, hydroelectric generation, and water quality. This natural resource is at risk; available measurements show clear trends toward less snow-covered area and earlier peaks in snow water equivalent. Given the impracticality of building and maintaining observation networks in high elevation complex terrain, the only solution to monitor and manage the global snowpack is with remote sensing. I will show recent advances in remote sensing techniques, including the use of drones, airplanes, and satellites, to quantify total water content and constrain timing and magnitude of snowmelt runoff at multiple scales. These methods are being developed to address the spatial, temporal, and/or spectral limitations of current long term remote sensing datasets, to more effectively manage snow water resources, and to better understand how they are changing over time.

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Wednesday, October 3, 2018, at 3:15pm
295 FASB
Refreshments and Meet the Speaker at 3:00pm