



סמינר המכון למדעי כדור הארץ
The Institute of Earth Sciences seminar

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Ecohydrology and Informatics: Seeing the water in the trees

Wednesday November 30, 2016, Room 109, 10:00

Abstract

One of the goals of eco-hydrology is to be able to estimate how much water plants use. Plant water use often comprises a substantial fraction of the water budget, influencing water flux to the atmosphere, recharge to groundwater and surface water. At the same time how much water plants are able to access is often a key control on plant growth, carbon sequestration and vulnerability to pathogens, insects and fire. Eco-hydrology investigates how plant water use changes with climate, and the effects of planned and unintentional changes to the landscape through disturbance, land management practices and development. In recent decades, a multiplicity of techniques have been used to improved estimates of plant water use ranging from tree-scale measurements to flux tower measurements of stand-scale behavior to regional/global scale remote sensing. Process-based models provide a complementary approach that can be used to guide, explain and synthesize these measurements. This talk will demonstrate this often under-utilized role of process-based models. Using case-studies from the Western-US, I will show how model-data integration can provide insight into a) how warmer temperatures and drought influence forest water use and vulnerability to drought-related disturbance and whether forest management practices can mitigate this vulnerability and b) how the organization of impervious surfaces can influence surrounding vegetated patches. Results emphasize the utility of new geophysical data collection at multi-PI observatories (such as the Critical Zone Observatory Network and Long-Term Ecological Research Sites) and the importance of new informatics tools that support the evolution of environmental information systems.

הסמינרים מתקיימים בימי רביעי בשעה 10.00 באולם 109 בבניין המכון למדעי כדור הארץ,

קמפוס אדמונד י. ספרא, גבעת רם.

קפה יוגש לפני הסמינר בשעה 09.45

הזמנה זה משמשת אישור כניסה לקמפוס אדמונד י. ספרא, גבעת רם החל מהשעה 8.00

מרכזי הסמינר: עמוס פרומקין (054-8820489) והגית אפק (02-6584654)