



**Ben-Gurion University of the Negev
Blaustein Institutes for Desert Research**

The Swiss Institute for Dryland Environmental and Energy Research
Alexandre Yersin Department of Solar Energy and Environmental Physics

Geo-electrical investigations in soil and hydrological

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Abstract:

Study of water-related phenomena in the subsurface is often conducted using either point measurements, or using disturbed and undisturbed samples. In both cases the transfer of the studied processes involves either extensive interpolation, or problematic up-scaling. Geophysical measurements potentially provide an alternative that directly measured in a minimally invasive and non-destructive the studied process at the appropriate scale.

In this talk we will focus on two geo-electrical measurement techniques, electrical resistivity tomography (ERT), and spectral induced polarization (SIP). Through a series of examples we will explore the pros and cons of the two, and get a brief look into interesting environmental, hydrological and ecological problems. Specifically, we will look into water flow in natural and engineered systems, look at plant root uptake, and at soil contamination and remediation.

Date & Location:

Tuesday, June 23, 2020, 11:00

Lecture room, Physics Building (ground floor)