Open Seminar Series
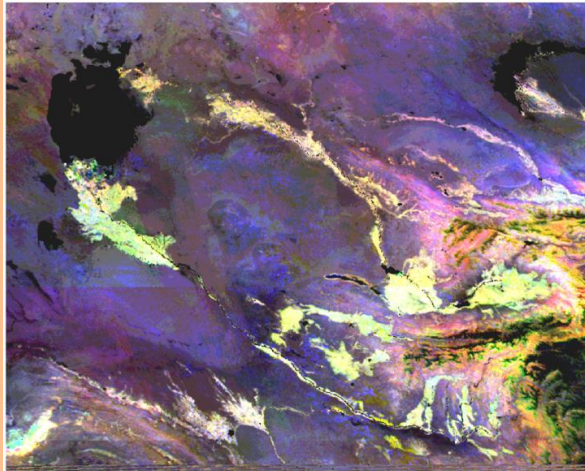# Geoscience & Remote Sensing

Irrigation water management: remote sensing vs. models. Or else?

Prof. dr. Massimo Menenti
TU Delft (GRS)
January 10, 2017
12:40-13:30
CiTG room E

Application of remote sensing to irrigation has a well-established tradition dating back to the early 70's. The launch of Landsat 4 and 5 in the 80's boosted the interest for such applications even further with simultaneous observations of spectral surface reflectance and of surface temperature at relatively high spatial resolution. Roughly at the same time, numerical modelling of the soil – plant – atmosphere continuum attracted the interest of a vast and diverse community, from agronomists to meteorologists. The seminar will review highlights of two H-2020 projects, MOSES ad SIM, and two ESA / NSO nanosatellites projects. MOSES will deliver a web – service to integrate seasonal and weekly weather forecasts, soil water balance modelling and remote sensing to monitor irrigation water requirements. SIM focuses on the full integration of thermal infrared measurements with a distributed hydrological model to extend irrigation planning and monitoring to large areas. The HyperScout imaging spectrometer will provide spectral measurements with on-board data processing and near real time delivery of information products to users. The Agricultural Monitoring System will provide multi – spectral measurements in the thermal infrared to monitor actual water use in irrigated lands.