Università Tor Vergata, Roma

Dipartimento di Informatica, Sistemi e Produzione

GeoInformation Doctorate

GeoInformation Seminar

DISP meeting room, Ingegneria dell'Informazione, 1 Via del Politecnico
25 January 2012, starting at 16:00

Alessandro Piscini

Neural Networks approach to multispectral and hyperspectral data analysis for volcanic ash, SO_2 and wildfires monitoring

The project is focused on the application of Neural Networks (NN) to the use of remote sensing satellite data for fast and reliable volcanic monitoring, a very important topic for human safety and air navigation.

In particular, the retrieval of volcanic ash particle size, mass, optical depth and sulfur dioxide from multispectral remote sensing data is approached by NN algorithms.

Alessandro Piscini received his degree in Physics from La Sapienza University. He is currently researcher at Istituto Nazionale di Geofisica e Vulcanologia, with the Remote Sensing laboratory, and his research is focused mainly on the analysis of optical multipsectral and hyperspectral remote sensing data.

Lucia Maria Laurenza

MARTA, Multi-purpose Atmospheric Radiative Transfer Algorithm

The Multi-purpose Atmospheric Radiative Transfer Algorithm (MARTA) is one of the tasks of project CTOTUS, funded by Regione Toscana and coordinated by IFAC-CNR.

The objective is to develop a multi-purpose, flexible code for radiative transfer simulations in the Earth's atmosphere aimed at generating synthetic measurements acquired by remote-sounders using different viewing geometries (nadir, zenith and limb-sounding from ground-based, airborne and satellite payloads), with spectral coverage from the mm-wave to the near-infrared region.

Lucia Maria Laurenza received the Masters degree in Physics from La Sapienza University, Rome. Her thesis work focused on the study of the urban heat island over Rome, using MERIS and AATSR products (ENVISAT mission).

She is currently a third-year PhD candidate at Tor Vergata University, Rome, with a Research Fellowship at IFAC-CNR (Florence). Her research is focused mainly on radiative transfer in the atmosphere and forward models.

You are cordially invited to attend.

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http://www.disp.uniroma2.it/geoinformation/