

Programme - EO Summer School 6 – 2012

Jean-Nöel Thépaut (ECMWF)
Satellite Data for Numerical Weather Prediction: I
Satellite Data for Numerical Weather Prediction: II
New applications of Satellite Data Assimilation: Reanalyses, Atmospheric Composition, climate monitoring and much more...
Martin Visbeck (GEOMAR)
Global Ocean In-Situ Observing Systems
Atlantic Ocean Overturning Circulation
The Future Ocean: To warm, to high turning sour
Johanna Tamminen (Finnish Meteorological Institute)
Inverse problems and uncertainty quantification in remote sensing
Markov chain Monte Carlo technique with applications in remote sensing of atmospheric composition
Priors, posteriors and model uncertainty
Peter Minnett (University of Miami)
Satellite Oceanography: Sea-Surface Temperature and Climate Data Records
Satellite Oceanography: Ocean color
Applications of microwave radiometry in ocean and atmospheric science
Claudia Kuenzer (DLR)
Physical Principles of Remote Sensing
Image Classification
Thermal Remote Sensing
Iarla Kilbane-Dawe (Ind. Science & Policy Researcher)
Deciding what's over the horizon - creating new innovation
Making ideas work - developing innovations that people want
Creating demand for innovations - marketing and communications strategies
Andreas Kääb (University of Oslo)
Remote sensing of glaciers and ice caps 1: area and mass changes
Remote sensing of glaciers and ice caps 2: dynamics
Remote sensing of glaciers and ice caps 3: natural hazards
Alan O'Neil (NCEO)
The theory of data assimilation: basic concepts

Data assimilation: practical algorithms
Exploiting Earth Observations with data assimilation
Reiner Rummel (Technische Universität München)
ESA explorer mission GOCE: earth gravity from space
Signal processing on a sphere
Gravity and Earth Sciences
Ernesto Lopez-Baeza (Universitat de Valencia)
Physical Principles of Passive Microwave Radiometry. Soil Moisture
Soil Moisture Estimation from Space and its Validation
Remote Sensing Applications for Land/Atmosphere: Earth Radiation Balance
Michel Verstraete (JRC)
Introduction to radiation anisotropy
Observing Earth from different directions with MISR
Exploiting the spectral and directional signatures of land surfaces
Roberto Sabia (ESA)
Satellite Oceanography: Ocean Salinity
Stefano Nativi (CNR)
Cyberinfrastructures in Earth Sciences
DA (Data Assimilation) Practicals
Effect of statistical analysis parameters
4D-Var and incremental 4D-Var
Ensemble and extended Kalman filters
Projects
Student's Projects
RS (Remote Sensing) Practicals
Measuring productivity in the Benguela upwelling system
Sea Surface Temperature and the Indian Ocean Dipole
Monitoring oil pollution using SAR and optical data
Exploring the Sensitivity of Passive Microwave Signatures to Different Surface and Observation Conditions
Rice mapping in the Phillipnes
Anisotropy