

Programme - EO Summer School 2 – 2008

Peter Lemke (AWI)
Remote sensing of sea ice
Changes in the Arctic
Contribution to the IPCC Fourth Assessment Report (WG I)
Tony McNally (ECMWF)
Satellite Data Assimilation for NWP (I)
Satellite Data Assimilation for NWP (II)
New Satellite Technologies, Applications and Reanalysis
Alan O'Neill (DARC)
Overview of DA techniques
DA theory and algorithms
DA applications (Earth Systems)
Shaun Quegan (CTCD)
The terrestrial carbon cycle: processes and observations
Improving knowledge of the carbon cycle through model-data fusion
Carbon cycle missions: present capabilities and future promises
Bernard Pinty (JRC)
Basic concepts: from EO measurements to surface albedo estimates (I)
Basic concepts: from EO measurements to surface albedo estimates (II)
Monitoring land surfaces: applications of inverse packages of BRF and albedo models
Thomas Kaminski (FASTOPT)
Introduction to inverse modelling
Intro tangent and adjoint code construction
Demo: BRF inverse package and Carbon Cycle Data Assimilation System
Samantha Lavender (UoP/ARGANS)
An introduction to marine optics and ocean colour products/algorithms
Understanding biological variability in the open ocean (GLOBCOLOUR project)
The coastal challenge
Kevin Trenberth (NCAR)

Flow of Energy in the Earth climate system
Global Water cycle and its change
Global Climate Information System to support adaptation to regional climate change
Dave Carlston (IPY)
IPY scientific activities
IPY educational activities
Ana Maiques (Starlab)
EO applications: opportunities & challenges
Linking Science & Applications
Stefano Migliorini (DARC)
Ensemble methods for data assimilation
Henri Laur (ESA)
The Earth Observation Programme at ESA

Computing Practicals

Data Assimilation Practicals (http://darc.nerc.ac.uk/models)
Stefano Migliorini (DARC) Marek Wlasek (UK Met Office) Joanne Walker (Oxford University)
Effect of statistical analysis parameters
Sequential data assimilation
Four-dimensional variational assimilation
Data assimilation projects

Remote Sensing Tutorial (Bilko)
Val Byfield (NOC) Steffen Dransfeld, Giuseppe Ottavianelli and Marco Lavallo (ESA)
Synergistic use of data from SAR, optical and other satellite sensors in oil spill monitoring
Synthetic Aperture Radar: Land applications tutorial
Eddies in the Western Indian Ocean: effects of the Somali Current and Indian Ocean Monsoon
From level 1 to level 3 data sets: Confidence flags, co-registration, gridding and creation of level 3 data products.
Sea surface temperature from AATSR

