

Overview of the Training Course

C. Zehner (ESA)

Background/History: Dragon Programme

- **Ocean remote sensing 2004:** Ocean University, Qingdao, 80 students
- **Land remote sensing 2005:** Capital Normal University, Beijing, 103 students
- **Atmospheric remote sensing 2006:** Beijing University, 60 students

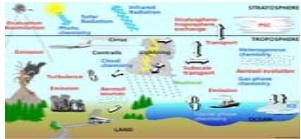


- Audience: PhD students, Post docs, research scientists
- Lectures and hands-on Practicals taught by European scientists
- Similar Courses also in Europe – Oxford: first one on atmosphere in Europe

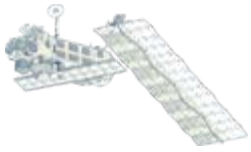
The Participants

- 52 participants selected from > 100 applications
- Approx. 30 different institutes represented
- Education levels: MSc to post-doc
- 23 different countries

Goals of the training course



Train young scientists on the state of the art in space-based atmospheric science.



Enable a better understanding of the key concepts of the ESA ERS and Envisat missions, in particular with respect to atmosphere remote sensing.



Provide hands-on experience with tools and methods used for the exploitation of ERS and Envisat satellite data.



Give you the theoretical and practical framework for further studies.

Hennie Kelder,
KNMI, The
Netherlands

GOME, SCIAMACHY and OMI instruments
Retrieval techniques (UV + VIS / DOAS, absorption) + Modelling



Bruno Carli, IFAC,
Italy

MIPAS instrument
Retrieval techniques (IR - emissions), Stratospheric research



Erkki Kyrölä, FMI,
Finland

Retrieval techniques (Inversion, Occultation, limb scattering)
GOMOS instrument, Stratospheric/Mesospheric research
Practical: Retrieval Algorithms



Brian Kerridge,
RAL, UK

GOME, ATSR, IR-Sounding Instruments
Retrieval Techniques (UV-VIS, IR, MW),



Clife Rodgers,
University of Oxford,
UK

Retrieval Theory
Practical: Retrieval Theory



Hendrik Elbern,
Univ. Cologne, G
European Space Agency
Agence spatiale européenne

Data Assimilation: Basics, Application for the stratosphere
and chemical weather
Practical: Data Assimilation



Programme Overview

Day 1 - Monday 15 September: Opening Session, Icebreaker

Day 2 - Tuesday 16 September – Instruments/Data Handling

Day 3 - Wednesday 17 October – Retrieval and Radiative Transfer

Day 4 - Thursday 18 October – Validation

Day 5 - Friday 19 October – Data Assimilation/Modelling, Social Event

Day 6 - Saturday 20 October: Challenges, Closing Session

Key Support to the Organisation

ESA: Cathy Morris

University of Oxford: Luis Millan Valle,
Anu Dudhia

S&T: Sander Niemeiyer

Wishing you a successful training!