
## Programme

| Day 1, Monday 21 January 2008 | | |
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| 09:30-11:00 | Registration and Poster mounting | |
| **Opening Session** | | **Chair: Y.-L. Desnos (ESA)** |
| 11:00-11:10 | Official ESA Welcome | Dr. Volker Liebig (Director of EO Programmes, European Space Agency) |
| 11:10-11:25 | Workshop Background, Objectives and Organization | Yves-Louis Desnos (ESA) |
| 11:25-11:45 | Status of ERS and Envisat Missions | Henri Laur (ESA) |
| 11:45-12:05 | ERS and Envisat SAR Performance, Processing and Products for Oceanography | Nuno Miranda (ESA) |
| 12:05-12:25 | Operational Marine Survaillance with SAR | Olaf Trieschmann (EMSA) |
| **Missions** | | **Chair: D. De Lisle (CSA), A. Coletta (ASI)** |
| **12:25-12:45** | **Sea and Ice Products from Sentinel-1** | **Evert Attema (ESA)** |
| **12:45-13:05** | **Application of TerraSAR-X for oceanography** | **Susanne Lehner (DLR)** |
| **13:05-13:25** | **COSMO-SkyMed Mission status** | **Alessandro Coletta (ASI)** |
| **13:25-13:45** | **RADARSAT-2 Program Status** | **Daniel De Lisle (CSA)** |
| 13:45-14:45 | Lunch | |
| **Ocean Current Applications** | | **Chair: J. Johannessen (NERSC), J. A. Lorenzzetti (INPE)** |
| **14:45-15:15** | **An assessment of the usefulness of SAR images to help better locating the Brazil Current surface inshore front** | **João A. Lorenzzetti (National Space Research Institute)** |
| **15:15-15:45** | **A model of combined backscatter and Doppler shifts for surface velocity estimation from SAR images.** | **Johnny Johannessen (NERSC)** |
| **15:45-16:15** | **Routine high resolution observation of selected major surface currents from space** | **Fabrice Collard (BOOST Technologies)** |
| **16:15-16:45** | **Upper Ocean patters in the Southern coast of Chile from ENVISAT ASAR and ERS-2 SAR imagery** | **Cristina Rodriguez-Benito (Mariscope Chilena)** |
| 16:45-17:00 | Coffee Break | |
| **17:00-17:30** | **Multi-Sensor Observation of Mesoscale and Small-Scale Features** | **Marina Mityagina (Space Research Institute of Russian Academy of Sci)** |
| **17:30-18:00** | **Synergetic combination of ASAR with** | **Johnny Johannessen** |

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| | **spectrometers and radiometers for advanced interpretation of mesoscale current features.** | **(NERSC)** |
| 18:00-18:30 | Discussion | |
| 18:30-19:30 | Welcome Cocktail | |
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| **Day 2, Tuesday 22 January 2008** | | |
| Wave Applications, Internal Waves and Swell | | Chair: J. Da Silva (University of Lisboa), F. OCampo Torres (CICESE) |
| **08:15-08:45** | **Spatial and Temporal Variations of Internal Waves in the South China Sea** | **Weigen Huang (Second Institute of Oceanography, State Oceanic Ad)** |
| **08:45-09:15** | **Synthetic Aperture Radar Observations of Sea Surface Signatures of Atmospheric Gravity Waves over Coastal Waters** | **Werner Alpers (University of Hamburg)** |
| **09:15-09:45** | **Effects of gap-winds on multi-modal ocean Swell systems at the south Pacific coast of Mexico** | **Guillermo Díaz-Méndez (Universidad Autonoma de Baja California)** |
| **09:45-10:15** | **Remote Sensing of Internal Waves in the Mid-Atlantic Bight** | **Michael Caruso (CSTARS-University of Miami)** |
| **10:15-10:45** | **On the ocean surface wave spectrum detection under hurricane influence: Detailed spatial evolution.** | **Francisco (Paco) OCampo-Torres (CICESE)** |
| 10:45-11:15 | Coffee Break | |
| Wave Applications, Internal Waves and Swell, cont. | | Chair: W. Huang (Second Institute of Oceanography), W. Alpers (University of Hamburg) |
| **11:15-11:45** | **First results obtained in the OSIRIS project** | **Johannes Schulz-Stellenfleth (DLR)** |
| **11:45-12:15** | **Remote sensing of ocean surface winds, currents, waves, and internal waves around the Korean peninsula using Space-borne Synthetic Aperture Radar (SAR)** | **Duk-jin Kim (Korea Aerospace Research Institute) presented by Wooil Moon** |
| **12:15-12:45** | **Do Moving Polar Highs play a significant role on the generation of Internal Solitary Waves in the Atmosphere?** | **José da Silva (University of Lisbon)** |
| **12:45-13:15** | **Global swell waves observation and application for NRT storm swell tracking and swell attenuation estimation** | **Fabrice Collard (BOOST Technologies)** |
| 13:15-13:45 | Discussion | |
| 13:45-14:45 | Lunch | |
| Methodology and techniques | | Chair: B. Chapron (IFREMER), H. Johnsen (NORUT) |
| **14:45-15:15** | **SAR Altimetry Applications Over Water** | **Cristina Martin Puig (Starlab)** |
| **15:15-15:45** | **Development of an L-Band Geophysical Model Function and Comparison with Measured** | **Donald R. Thompson (Johns Hopkins** |

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| | **Cross Section Data** | **University/APL)** |
| **15:45-16:15** | **Comparison of data and model predictions of current, wave and radar cross-section modulation by seabed sand waves** | **Cees de Valk (ARGOSS)** |
| 16:15-16:45 | Coffee Break | |
| **16:45-17:15** | **Investigation of ship accidents using global ERS-2 and ENVISAT wave mode** | **Elzbieta Bitner-Gregersen (DNV) presented by W. Rosenthal** |
| 17:15-17:45 | Discussion | |
| **Poster session** | | **Chair: J. Da Silva (University of Lisboa), J. A. Lorenzzetti (INPE)** |
| 17:45-19:45 | Poster Session and Cocktail | |
| **Concept Design of Near-Space Passive Radar for Ocean Remote Sensing** | | **Wen-Qin Wang (Uni. of Electron. Sci. and Tech. of China)** |
| **Ice Detection and Classification in Liaodong Bay with ENVISAT ASAR Imagery** | | **Yonggang JI (First Institute of Oceanography,SOA)** |
| **Comparison and Evaluation for Ship Target Detection Algorithms with ENVISAT ASAR** | | **Xi ZHANG (Ocean University of China)** |
| **Numerical Simulation on Series of Airborne SAR Images of Internal Waves** | | **Li Fei (Chinese Academy of Sciences)** |
| **Analysis of Effects of Environmental Factors on Spatio-Temporal Distribution of Ice in Liaodong Bay with Envisat ASAR and MODIS Imagery** | | **Haibo YUE (Ocean University of China)** |
| **Simulating the Influence of Wave Whitecaps on SAR Images** | | **Eugenio Pugliese Carratelli (CUGRI and University of Salerno)** |
| **Speed ambiguity in SAR hurricane wind retrievals** | | **William Perrie (Bedford Institute of Oceanography)** |
| **The characteristics of internal waves in the Yellow Sea observed by SAR** | | **Taerim Kim (Kunsan University)** |
| **Detection and morphological measurements of oil slicks in SAR images: an approach exploiting 'free software' libraries.** | | **Flavio Parmiggiani (CNR)** |
| **Sea Bed Geoforms in the Argentine Coast Identified by the ERS-SAR Missions: Influences on Ocean Dynamic and Bottom Geomorphology** | | **Domingo Antonio Gagliardini (CONICET)** |
| **SAR signatures of oceanic internal waves in the Barents Sea** | | **Igor Kozlov (Russian state hydrometeorological university)** |
| **China East Sea Coastal Wind Field observation by Synthetic Aperture Radar and Scatterometer** | | **Xiaoming Li (German Aerospace Center (DLR))** |
| **Comparison between SAR streaks and AVHRR spatial and temporal evolution of cloud streets to derive rolls aspect ratio maps and PBL depth** | | **Elena Arabini (Prof. Inst.)** |
| **Analysis of a global ERS-2 wave mode data set acquired over the ocean taking a synergetic approach** | | **Guiting Song (German Aerospace Center(DLR))** |

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| **On the Capability of the Degree of Polarization for Oil Spill Observation** | | **Attilio Gambardella (Università degli Studi di Napoli Parthenope)** |
| **Use of SAR data for ships positioning control: a two-year study** | | **Olga Lavrova (Space Research Institute of RAS)** |
| **Automatic Recognition Of Coastal and Oceanic Environmental Events In Orbital Radars** | | **Cristina Maria Bentz (PETROBRAS Research Center)** |
| **Online Access to Radar Maritime Monitoring Data** | | **O.N. Gershenzon (ScanEx)** |
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| **Day 3, Wednesday 23 January 2008** | | |
| Oil Spill Applications | | Chair: V. Kerbaol (BOOST Technologies), O. Trieschmann (EMSA) |
| **08:30-09:00** | **CleanSeaNet: The EU remote sensing based monitoring system for marine oil spill detection and surveillance in European waters** | **Samuel Djavidnia (European Maritime Safety Agency)** |
| **09:00-09:30** | **Satellite Monitoring of Oil Spills in the Mediterranean Sea for 1999-2004** | **Kostas Topouzelis (Joint Research Centre)** |
| **09:30-10:00** | **Monitoring Of Oil Pollution Using Earth Observation Data (MOPED)** | **Valborg Byfield (National Oceanography Centre)** |
| **10:00-10:30** | **DEvelopment of Marine Oil Spill Satellite monitoring system for the Black Sea, Caspian Sea and Kara/Barents Seas (DEMOSS)** | **Stein Sandven (NERSC)** |
| **10:30-11:00** | **Satellite monitoring of sea surface state of Russia's coastal zone of the Black and Azov Seas** | **Olga Lavrova (Space Research Institute of RAS)** |
| 11:00-11:15 | Coffee Break | |
| Oil Spill Techniques | | Chair: B. Chapron (IFREMER), G. Campbell (ESA) |
| **11:15-11:45** | **Sea Oil Spill Observation by means of Analysis of Spatial Statistics in Polarimetric SAR Data Using Wavelet Signatures** | **Attilio Gambardella (Università degli Studi di Napoli Parthenope)** |
| **11:45-12:15** | **Oil Spill Detection by means of Dual-polarized SAR data/Analysis of the sea surface scattering with and without surface slicks** | **Ferdinando Nunziata (Università di Napoli Parthenope)** |
| **12:15-12:45** | **Unsupervised oil spill detection in SAR imagery through an estimator of local regularity** | **Marivi Tello (Universitat Politecnica de Catalunya)** |
| **12:45-13:15** | **Oil Spill Detection and Prediction from SAR multiscale analysis** | **Jose Manuel Redondo (Univ. Politecnica de Catalunya)** |
| 13:15-13:45 | Discussion | |
| 13:45-14:30 | Lunch | |
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| Vessel Detection Applications | | Chair: O. Trieschmann (EMSA), G. Campbell (ESA) |
| **14:30-15:00** | **Maritime Domain Awareness Experiment** | **Hans Graber (CSTARS-University of Miami)** |
| **15:00-15:30** | **Near Real Time (NRT) Suspect Vessel Identification (SVI) system** | **Paulo Miguel Nunes do Carmo (Edisoft, SA) presented by Sónia Pelizzari** |
| **15:30-16:00** | **Characterisation of Location Discrepancies between ENVISAT/ERS Ship Detection Reports and AIS Records During the MARISS Phase 2 Trials in France** | **Jean-Yves Le Bras (CLS)** |
| 16:00-16:15 | Coffee Break | |
| Vessel Detection Techniques | | Chair: J. Schulz Stellenfleth (DLR), G. Campbell (ESA) |
| **16:15-16:45** | **Remote Sensing of Ship Wakes** | **Alexander Soloviev (Nova Southeastern University)** |
| **16:45-17:15** | **Ship Detection : from Processing to Instrument Characterisation** | **Guillaume Hajduch (BOOST Technologies)** |
| **17:15-17:45** | **Ship Detection Approach Based on Cross-correlation from ENVISAT ASAR Ap Data** | **Chan-Su Yang (Ocean Satellite Research Group)** |
| **17:45-18:15** | **Discretization Effects in Sea Surface Simulation Applied to Ship Classification Studies** | **Gerard Margarit (Universitat Politecnica de Catalunya (UPC))** |
| 18:15-18:45 | Discussion | |
| 19:30-22:30 | Non hosted Dinner | |
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| **Day 4, Thursday 24 January 2008** | | |
| Ocean Wind Applications | | Chair: J. Horstmann (GKSS), W. Alpers (University of Hamburg) |
| **09:15-09:45** | **Near-Real Time Generation of ENVISAT ASAR Level-2 Wind and Waves products: Presentation of the system and preliminary achievements** | **Vincent Kerbaol (BOOST Technologies)** |
| **09:45-10:15** | **Wind energy and SAR wind mapping** | **Charlotte Hasager (Risoe National Laboratory DTU)** |
| **10:15-10:45** | **Similarities and differences of SAR derived wind fields using two different methods: the local gradient and the continuous wavelet transform methods** | **Stefano Zecchetto (Consiglio Nazionale delle Ricerche)** |
| **10:45-11:15** | **Detection of Meso-scale Atmospheric Fronts in the Marine Boundary Layer by Spaceborne Synthetic Aperture Radar** | **Werner Alpers (University of Hamburg)** |
| 11:15-11:45 | Coffee Break | |

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| Ocean Wind Applications, cont. | | Chair: S. Lehner (DLR), D. R. Thompson (JHU-APL) |
| **11:45-12:15** | **Error Analysis of Synthetic Aperture Radar Retrieved Wind Speeds** | **Jochen Horstmann (GKSS Research Center)** |
| **12:15-12:45** | **Synergetic use of Radar and optical Satellite Images to Support Severe Storm Prediction** | **Stephan Brusch (DLR)** |
| **12:45-13:15** | **A New SAR Retrieval Method for Hurricane Wind Parameters** | **Antonio Reppucci (German Aerospace Center (DLR))** |
| 13:15-13:45 | Discussion | |
| 13:45-14:45 | Lunch | |
| Wave Mode Algorithms, Validation and Assimilation | | Chair: H. Johnsen (NORUT), G. Kallos (University of Athens) |
| **14:45-15:15** | **Analysis and inversion of ASAR WM data - assessment of polarization and incidence angle dependencies** | **Harald Johnsen (Norut)** |
| **15:15-15:45** | **Data assimilation in WAM4 – System operations and validation** | **George Kallos (University of Athens)** |
| **15:45-16:15** | **Recent improvements for the assimilation of upgraded ASAR wave spectra in the wave model** | **Lotfi Aouf (Météo France)** |
| **16:15-16:45** | **Ocean Wave Measurements in High and Complex Sea State by SAR Wave Mode Data and Numerical Wave Model** | **Xiaoming Li (German Aerospace Center (DLR))** |
| 16:45-17:15 | Coffee Break | |
| **17:15-17:45** | **Status of Global Validation of ENVISAT ASAR Wave Mode Products at ECMWF** | **Saleh Abdalla (ECMWF)** |
| 17:45-18:15 | Discussion | |
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| **Day 5, Friday 25 January 2008** | | |
| Ice Applications | | Chair: O. Grabak (ESA), P. Clemente Colon (NOAA/NESDIS) |
| **08:45-09:15** | **Detection of Arctic icebergs on the base of satellite SAR** | **Vitaly Alexandrov (NIERSC)** |
| **09:15-09:45** | **Improved sea ice monitoring for the Baltic Sea – Project overview and first results** | **Leif E.B. Eriksson (Chalmers University of Technology)** |
| **09:45-10:15** | **Sea ice classification using ASAR Alternating Polarisation images** | **Stein Sandven (NANSEN ENVIRONMENTAL AND REMOTE SENSING CENTER)** |
| **10:15-10:45** | **Coincident Measurement of Arctic Sea Ice using Envisat ASAR and Submarine** | **Nicholas Hughes (Scottish Association for Marine Science)** |
| 10:45-11:15 | Coffee Break | |
| **11:15-11:45** | **Analysis of polarimetric signatures of Arctic lead ice using data from AIRSAR and** | **Daniel Bäck (Chalmers University** |

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| | **RADARSAT** | **of Technology)** |
| 11:45-12:15 | Discussion | |
| **Session Summary** | | |
| 12:15-12:25 | Wave Mode Algorithms, Validation and Assimilation Summary | |
| 12:25-12:35 | Ocean Current Applications Summary | |
| 12:35-12:45 | Ocean Wind Applications Summary | |
| 12:45-12:55 | Wave Applications, Internal Waves and Swell Summary | |
| 12:55-13:05 | Oil Spill Applications and Techniques Summary | |
| 13:05-13:15 | Vessel Detection Applications and Techniques Summary | |
| 13:15-13:25 | Methodology and Techniques Summary | |
| 13:25-13:35 | Ice Applications Summary | |
| 13:35-13:45 | Closing Remarks | |