

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Mon, 31 May 2010 **Symposium Opening, Keynote Session 1**

Room IV

14:00 Symposium Opening

The 30th EARSeL Symposium at UNESCO

Mario Hernandez, UNESCO, and Rainer Reuter, EARSeL

14:00 - 14:30

14:30 Keynote Session 1

Chairman: Rainer Reuter, University of Oldenburg, Germany

UNESCO Space Partnerships for Natural and Cultural Heritage

Mario Hernandez

14:30 - 15:00

CNES and Earth Observation: Past, Current and Future Perspectives

Pascale Ultré-Guérard, Aurélie Sand

15:00 - 15:30

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Mon, 31 May 2010 **Monday Parallel Session 1**

Room IV

16:00 **Archaeology 1**

Chairman: Rosa Lasaponara, IMAA-CNR, Tito Scalo, Italy

Very High Resolution Satellite Data in Archaeology and Paleoenvironmental Studies

Rosa Lasaponara, R. Coluzzi, N. Masini

16:00 - 16:20

Advancement in Automatic Monitoring and Detection of Archaeological Sites Using a Hybrid Process of Remote Sensing, Gis Techniques and a Shape Detection Algorithm

Alessio Adi Di Iorio, Nazzareno Nst Straccia, Renzo Rci Carlucci

16:20 - 16:40

Very High Resolution Satellite Remote Sensing as Part of an Integrated Approach for Archaeological Prospection at Tepe Düzen (Southwest Turkey)

Véronique De Laet, B. Music, S. Aydal, K. Vyncke, H. Vanhaverbeke, E.

Paulissen, G. Verstraeten, M. Waelkens

16:40 - 17:00

Kemmelberg (Belgium) Case Study: Comparison of DTM Analysis Methods for the Detection of Relicts from the First World War

Cornelis Stal, Jean Bourgeois, Philippe De Maeyer, Guy De Mulder, Alain De
Wulf, Rudi Goossens, Timothy Nuttens, Birger Stichelbaut

17:00 - 17:20

Public Spatial Data in Service of Polish Archaeologists

Lukasz Banaszek

17:20 - 17:40

19:30 Icebreaker

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Mon, 31 May 2010 **Monday Parallel Session 2**

Room III

16:00 **Urban Remote Sensing**

Chairman: Carsten Jürgens, Ruhr-University Bochum, Germany

New Developments in Population Estimate from Remote Sensing

Herbert Hansen, Sophie Taupin, Amélie Desgroppes

16:00 - 16:20

Extraction of Buildings from QuickBird Imagery for Municipal Use – the Relevance of Urban Context and Heterogeneity

Sergio C Freire, Teresa Santos, Ana Fonseca, Jose A Tenedório

16:20 - 16:40

Mapping Urban Change for Planning the Future

Cristina D Henriques, José António Tenedório

16:40 - 17:00

Urban Atlas Updating by Semi-automatic Change Mapping

Joeri Van Wolvelaer, César Santos González, Antonio Garzón López, Anna Maria Deflorio

17:00 - 17:20

Analysis of the Relationship between Urban Land Use and Urban Heat Island using RS Methods

László Mucsi, László Henits, János Unger

17:20 - 17:40

Improving the Characterization of Urban Form and Function with Spatial Metrics using Remotely Sensing Data

Sven Vanderhaegen, Frank Canters

17:40 - 18:00

High Precision Monitoring of Urban Sealing

Andreas Mütterthies, Klaus Ulrich Komp

18:00 - 18:03

19:30 Icebreaker

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Mon, 31 May 2010 **Monday Parallel Session 3**

Room V

16:00 Understanding Climate and Climate Change 1

Chairman: Eberhard Parlow, University of Basel, Switzerland

Time-series Analysis of Late Summer Snow Patches in Northern Swedish Lapland

Eberhard Parlow

16:00 - 16:20

Use of Cloud Observations by Geostationary Satellite to Correct Photolysis Reaction Rates

Arastoo Pour Biazar, Richard McNider

16:20 - 16:40

Use of Ozone Monitoring Instrument (OMI) Ozone Profiles in Air Quality Assessment Studies

Arastoo Pour Biazar, Richard T McNider, Maudood Khan, Yun-Hee Park, Mike Newchurch, Lihua Wang

16:40 - 17:00

Footprint Modelling Applied to ASTER Derived Heat Fluxes

Corinne M Frey, Eberhard Parlow

17:00 - 17:20

19:30 Icebreaker

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Mon, 31 May 2010 **Monday Parallel Session 4**

Room VIII

16:00 Instruments and Methods 1

Chairman: Gottfried Konecny, University of Hannover, Germany

The US/F A-TRAIN Concept

Gerard Begni, Didier Renaut, Didier Tanre, Jacques Pelon

16:00 - 16:20

Towards the Pleiades Thematic Commissioning Phase

Benoit Boissin, H el ene De Boissezon, Manuel Grizonnet, Aur elie Sand

16:20 - 16:40

The PROBA-V Mission: Data Continuity for Daily Global Vegetation Monitoring

Jean-Christophe Schyns

16:40 - 17:00

Generating Consistent Land Surface Temperature and Emissivity (LST&E) Products between ASTER and MODIS Data for Earth Science Research

Glynn Hulley, Simon Hook

17:00 - 17:20

Effects of Aliasing and Mis-Registration on Pan-Sharpener Methods Based on Either Component Substitution or Multi-Resolution Analysis

Andrea Garzelli, Bruno Aiazzi, Luciano Alparone, Stefano Baronti, Massimo Selva

17:20 - 17:40

Digital Elevation Models as Data Source for Land Suitability Analysis in Colombia

Luis Joel Martinez Martinez

17:40 - 18:00

19:30 Icebreaker

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Tue, 01 Jun 2010 **Tuesday Parallel Sessions 1**

Room IX

09:00 UNESCO and Space Partners Assisting World Heritage 1

Chairman: Mario Hernandez, UNESCO

Cultural Heritage Spatial Data Infrastructures (SDI)

Anthony J Corns, Robert Shaw

09:00 - 09:20

Remote Sensing and Image Understanding as Reflected in Poetical Literature of Iran

Seyed Kazem Alavipanah, Ehsan Golmehar, Bahere Khakbaz

09:20 - 09:35

Remote Sensing for the Monitoring of UNESCO World Heritage Natural Sites

Valerie Obsomer, Mario Hernandez, Pierre Defourny

09:35 - 09:55

GlobWetland II

Herbert Hansen, Weise Kathrin, Marc Paganini, Eleni Fitoka, Manfred Keil, Eric Van Valkengoed, Inge Melotte

09:55 - 10:15

Cultural Heritage between the Mountains and the Sea in the Eastern Adriatic

Vlasta Begovic, Ivancica Schrunk

10:15 - 10:18

Monitoring from Space of UNESCO Sites in Danger

Nicole Dore, Jolanda Patruno, Ana Belen Ruescas Orient, Francesco Sarti, Mario Hernandez

10:18 - 10:21

A Spatial Data Infrastructure for the Monitoring and Management of World Heritage Sites

Aur lie M Sand, F. Huynh, Vincent Heurteaux, M. Hernandez

10:21 - 10:24

Use of Landsat TM for mapping of World Heritage Sites, Forest Biodiversity, and National Natura 2000 Assessment

Erik Prins

10:24 - 10:39

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

11:00 UNESCO and Space Partners Assisting World Heritage 2

Chairman: Mario Hernandez, UNESCO

Remote Sensing of Reedbeds

Alex O. Onojeghuo, George A Blackburn

11:00 - 11:20

Laser Scanning Techniques for Remote 2D Hyperspectral Imaging of Decorated Monumental Surfaces

Francesco Colao, L. Caneve, Roberta Fantoni, Luca Fiorani

11:20 - 11:40

Evolution Estimated by Remote Sensing of Forest Boundaries in Two Parks in the Rainforest of Madagascar labeled UNESCO

Dominique Hervé, A. Andrianarivo, S. Razanaka, A. Batti, L. Dadu, E. Delaitre, F. Huynh

11:40 - 12:00

Calakmul 4DGIS: an Information Management System for the Conservation of Natural and Cultural Heritage

Vincent Tigny, Philippe De Maeyer, Roland Billen, Luc Van Gool

12:00 - 12:20

SARVisor: An Integrated Tool to Facilitate SAR Data Selection

Aurélie Sand, Nadine Pourthié, Fifamè Koudogbo, Javier Duro, Anne Urdiruz, Mario Hernandez

12:20 - 12:40

16:00 3D Remote Sensing 1

Chairman: Karsten Jacobsen, University of Hannover, Germany

Geometric Potentiality of GEOEYE-1 In-Track Stereo Pairs and Accuracy Assessment of Generated Digital Surface Models

Mattia Crespi, Paola Capaldo, Laura De Vendictis, Francesca Fratarcangeli, Andrea Nascetti, Francesca Pieralice, Gabriele Murchio

16:00 - 16:20

Producing a Building Change Map for Urban Management Purposes

Teresa Santos, Sérgio Freire, Ana Fonseca, José António Tenedório

16:20 - 16:40

DEM Extraction from High Resolution Satellite Stereopairs to Investigate the Hydraulic Hazard of Areas Subjected to River Floods

Alessio Furini, Francesca Fratarcangeli, Francesca Pieralice, Alberto Pellegrinelli

16:40 - 17:00

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Accuracy Control of ALOS DSM

Konstantinos G. Nikolakopoulos, Evagelia Gioti

17:00 - 17:20

Accuracy Control of ASTER GDEM and Comparison to DSM Created with Classical Photogrammetric Techniques

Konstantinos G. Nikolakopoulos, Panagiotis I. Tsombos

17:20 - 17:40

19:30 Excursion

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Tue, 01 Jun 2010 **Tuesday Parallel Sessions 2**

Room III

09:00 Understanding Climate and Climate Change 2

Chairman: Rainer Reuter, University of Oldenburg, Germany

Validating the EUMETSAT HydroSAF Snow Recognition Product over Mountainous Areas of Turkey

Serdar Sürer, Zuhail Akyürek, Unal Sorman

09:00 - 09:20

Combining High Spatial Resolution and Revisit Capabilities in the Thermal Infrared: the MISTIGRI Mission Project

Jean-Pierre Lagouarde, M. Bach, G. Boulet, X. Briottet, S. Cherchali, B. Coudert, G. Dedieu, O. Hagolle, F. Jacob, F. Nerry, A. Olivos, C. Ottlé, V. Pascal, J.-L.

Roujean, J.A. Sobrino, F. Tintó Garcia-Moreno

09:20 - 09:40

Assessment of Biomass and Carbon Sequestration in Kazakhstan: Comparison of Moderate to Coarse Resolution Sensors

Martin W. Kappas, Pavel Propastin, Stefanie M. Herrmann, Compton J. Tucker

09:40 - 09:43

Analysis of Land Surface Temperature Variations due to Fire at Oil Terminal, Jaipur, India

Sumit Khandelwal, Rohit Goyal

09:43 - 09:46

Effect of Vegetation and Urbanization over Land Surface Temperature: Case Study of Jaipur City

Sumit Khandelwal, Rohit Goyal

09:46 - 09:49

11:00 Radar Remote Sensing

Chairman: Fabio dell'Acqua, University of Pavia, Italy

Automatic Mapping of Earthquake Damage using Post-event Radar Satellite Data: The Story Goes On

Fabio Dell'Acqua, Diego Aldo Polli, Gianni Lisini

11:00 - 11:20

Georeference of High Resolution TerraSAR Images with RPFs

Dimitra Vassilaki, Charalambos Ioannides

11:20 - 11:40

Multitemporal RADARSAT-2 Polarimetric SAR Data for Urban Land Cover Classification using Support Vector Machine

Xin Niu, Yifang Ban

11:40 - 12:00

Radargrammetric Application with COSMO-SKYMED Imagery: Definition and Implementation of an Orientation Model for Spotlight Stereo Pairs

Mattia Crespi, Paola Capaldo, Francesca Fratarcangeli, Francesca Pieralice

12:00 - 12:20

Evaluation of DEMs Derived by TerraSAR-X InSAR Data

Umut Günes Sefercik, Uwe Soergel

12:20 - 12:40

3-Pass and 2-Pass Differential Interferometry and Result Comparison

Milan Borik

12:40 - 12:43

Use of PS Method for Subsidence Monitoring in Mining Areas

Barbora Knechtlova, Lena Halounova, Ivana Hlavacova

12:43 - 12:46

14:00 **Land Use Change Detection 1**

Chairman: Ioannis Manakos, MAICh, Chania, Greece

DeCOVER 2 Services to Support Land Cover Data Update, NATURA 2000 Monitoring and Cross Compliance using RapidEYE and TerraSAR-X

Oliver Buck

14:00 - 14:20

Update of the European High-resolution Layer on Built-up Areas and Soil Sealing 2006 with Image2009 Data

Ute Gangkofner, Juergen Weichselbaum, Steffen Kuntz, Lukas Brodksy, Karin Larsson, Vito De Pasquale

14:20 - 14:40

Landscape Change and Implications on Protected Areas

Hayriye Esbah, Bulent Deniz, Baris Kara, Birsen Kesgin, Erdinc Kutsal

14:40 - 15:00

Change Detection in Urban Areas With Landsat And Alos Imageries in Antakya, Turkey

Aysel Güzelmansur, Seref Kilic

15:00 - 15:03

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Actual State of Danube Delta Biosphere Reserve, using Aerospace and GPS Data

Iva Boneva Ivanova, Roumen Nedkov

15:03 - 15:06

Landscape Planning of Land-Use Using High Resolution Satellite Images and Ground-Based Data

Eugenia Roumenina, Lachezar Filchev, Vanya Naydenova, Petar Dimitrov, Georgi Jelev

15:06 - 15:09

Managing Water in Agriculture through Remote Sensing and WebGIS Applications

Jorge Rocha, António Perdigao, Raquel Melo, Cristina Henriques

15:09 - 15:12

16:00 Land Use/Land Cover

Chairman: Ioannis Manakos, MAICH, Chania, Greece

An Approach for Accuracy Assessment Comparison between Per-pixel Supervised and Object-oriented Classifications on a QuickBird Image

Vassil Vassilev

16:00 - 16:20

Integrating MODIS-EVI and Gridded Rainfall/Temperature Fields for Assessing Land Degradation Dynamics in Horqin Sandy Lands, Inner Mongolia (China)

Joachim Hill, Claudia Dach, Gabriel del Barrio, Marion Stellmes, Ulf Helldén

16:20 - 16:40

Semi-Automated LULC Classification of VHR Optical Satellite Data in the Context of Urban Planning

Holger Thunig, Simone Naumann, Alexander Siegmund

16:40 - 17:00

Land Cover/Use Mapping Using Object Based Classification of SPOT Imagery

K. Dimitrakopoulos, Ioannis Z. Gitas, A. Polychronaki, T. Katagis, Chara Minakou

17:00 - 17:20

Land Cover Mapping by an Optimized Object-oriented Approach. Case of Study: Mediterranean Landscapes

Javier Sanchez, Estibaliz Martinez, Agueda Arquero, Diego Renza

17:20 - 17:23

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Remote Sensing and Cartographic Diversity of Spatial Structure in Pomerania Landscape

Mieczyslaw Kunz

17:23 - 17:26

Updating the 1/50.000 Geological Maps of IGME with Remote Sensing Data, GPS Measurements and GIS Techniques. The Case of Antiparos Island.

Konstantinos G. Nikolakopoulos, Panagiotis I. Tsombos

17:26 - 17:29

HUMBOLDT Scenario: Protected Areas - Harmonisation Capabilities for a Future ESDI

Paolo Villa, Mario A. Gomasasca, Roderic Molina, Emanuele Roccatagliata

17:29 - 17:32

Road Classification from VHR Imagery

Marketa Potuckova, Lucie Kupkova, Sona Kolankiewiczova

17:32 - 17:35

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Tue, 01 Jun 2010 **Tuesday Parallel Sessions 3**

Room VI

09:00 **Specific Applications of Remote Sensing**

Chairman: Lena Halounova, Technical University of Prague, Czech Republic

High Value Nature and Culture Landscapes in Europe

Dirk M Wascher, Gerard Hazeu, Michiel van Eupen, Anne van Doorn, Berien Elbersen

09:00 - 09:20

Updating Objects for Topographic Map Information using High Resolution Satellite Images of Zonguldak Testfield

Mehmet Alkan, Umut Günes Sefercik, Aycan Murat Marangoz, Serkan Karakis

09:20 - 09:40

The Possibilities of New Satellite Image Types in the Control of Area-based Subsidies and in Ragweed Monitoring System

Gábor Csornai, Gábor Mikus, Gizella Nádor, Irén Hubik, István László, Katalin Lipták

09:40 - 10:00

Towards a Harmonized Biomass Potential Assessment in Europe: User Requirements and Initial Developments Using EO and Terrestrial Data

Chariton Kalaitzidis, Manuela Hirschmugl, Roland Perko

10:00 - 10:03

About the Accuracy of the Vegetation Indices from Multispectral Images: NDVI vs PVI

Enrico Borgogno Mondino

10:03 - 10:06

Spectral Remote Sensing of Infected with Tomato Mosaic Virus (ToMV) Tomato Plants (*Lycopersicon esculentum* L.)

Dora D. Krezhova, Toni K. Yanev, Ilko Ts. Iliev, Dimitrina P. Hristova

10:06 - 10:09

Chlorophyll Fluorescence Analysis of Infected with Tomato Mosaic Virus (ToMV) Tomato Plants (*Lycopersicon esculentum* L.)

Dora D. Krezhova, Ilko Ts. Iliev, Tony K. Yanev, Dimitrina P. Hristova

10:09 - 10:12

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Morphotectonic Features and Kinematic Analysis of the North Anatolian Fault Zone (NAFZ) around the Tasova (Amasya) Region using ERS-2 SAR and LANDSAT ETM+ Images

Kaan Sevki Kavak, Suha Ozden, Semir Over, Recai Kilic

10:12 - 10:15

11:00 **Developing Countries**

Chairman: Rudi Goossens, Ghent University, Belgium

National Wetlands Mapping in Uganda

Herbert Hansen, Enrico Bonino, Moses Musinguzi, Norah Namakambo

11:00 - 11:15

An Intercomparison of Time-series Satellite Data for Monitoring Vegetation Phenology in Western Africa

Bernard Lacaze, Benoit Toulouse, Jose-Luis San Emeterio

11:15 - 11:30

Vegetation and Forage Resource Mapping by Combination of LANDSAT ETM+ Mosaic and NOAA NDVI Time Series

Andrieu Julien

11:30 - 11:45

Use of Multi-temporal Satellite Data for Land-use/Land-cover Change Analyses and its Impacts on Soil Properties in the Northern Part of Gadarif Region, Sudan

Khalid Biro, Biswajeet Pradhan, Manfred Buchroithner, Franz Makeschin

11:45 - 12:00

Crop Mapping in Areas with Small-scale Farming

Josefien Delrue, Sven Gilliams, Isabelle Piccard

12:00 - 12:15

Geoprocessing and GIS for Ecotourism Evaluation and Planning in the Ngounié-Nyanga Region Southwest Gabon

Dieudonne Mouketou-Tarazewicz

12:15 - 12:17

Developing a Monitoring System for Sand Dunes Migration in Dakhla Oasis, Western Desert, Egypt

Mohammed Ghadiry, Barbara Koch

12:17 - 12:18

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

14:00 Education and Training 1

Chairman: Alexander Siegmund, University of Education Heidelberg, Germany
“EURAC Junior – Glacier Schoollab” at the European Academy of Bolzano/Italy

Uta Fritsch, Philipp Rastner, Francesca Taponecco, Matthias Mühlberger,
Christian Steurer

14:00 - 14:20

Combining a Learning Management System with Interactive Learning Content for Remote Sensing Education in Schools

Henryk Hodam, Kerstin Voss, Roland Goetzke

14:20 - 14:40

Using Remote Sensing Data in the Context of the Education for Sustainable Development

Markus Jahn, Michelle Haspel, Alexander Siegmund

14:40 - 15:00

Innovative Laboratory on the Basis of UniScan Technology at a University

Vitaly Ippolitov, Vladimir Gershenzon, Olga Gershenzon, Marina Sergeeva

15:00 - 15:20

Remote Sensing Education at Bulgarian Universities and High Schools

Lachezar H Filchev, Stefan K Stamenov

15:20 - 15:23

First Year Science Students’ Understanding the Relationship between Scientific Epistemological Beliefs and Nature of Science

Fulya Oztas

15:23 - 15:26

Development of a New Education Programme in Geodesy and Geoinformatics for Tajikistan – Highlights and Experiences

Zamirakhon Kodirova

15:26 - 15:29

Using Remote Sensing for the Understanding of Territorial Changes in the Schools of Lake Garda

Mariano Bresciani, Alba L’Astorina, Rossella Palmieri, Guido Parmeggiani, Paolo Villa

15:29 - 15:32

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

16:00 Disaster Monitoring and Response 1

Chairman: Marinko Oluic, Croatian Academy of Sciences and Arts, Zagreb, Croatia

International Charter 'Space and Major Disasters'

André Husson, Catherine Proy, Pierre Chastanet

16:00 - 16:20

Ten Years of Disaster Response with ASTER Data

Michael Abrams

16:20 - 16:40

Detection of the Damages Affecting Buildings in an Outer Urban Environment after an Earthquake from Quickbird Images

Benachir Aniss, Merring Catherine

16:40 - 17:00

Vulnerability Analysis of Floods in Urban Areas using Remote Sensing and GIS

Orkan Ozcan, Nebiye Musaoglu

17:00 - 17:20

Identification of Structural Changes caused by Natural Disasters in Agriculture by Synergistic Use of Optical and Radar Data

Gizella Nádor, Diána Fényes, György Surek

17:20 - 17:23

Drought Estimation Maps by Means Multidate Landsat Fused Images

Diego Renza, Estibaliz Martinez, Agueda Arquero, Javier Sanchez

17:23 - 17:26

Use of Remote Sensing Data and GIS to Produce Landslide Susceptibility Map of a Landslide Prone Area (Bertam Valley, Malaysia), using Weight of Evidence Model

Saro Lee, Biswajeet Pradhan, Hyun-Joo Oh, Manfred F. Buchroithner

17:26 - 17:29

Earth Observation for a Better Flood Anticipation, Risk Understanding and Crisis Management

Sonia Heitz, Patrick Matgen, Renaud Hostache, Christine Fosty, Laurent Pfister,

Lucien Hoffmann

17:29 - 17:32

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Flood Risk Analysis using Information Diffusion Theory – A Case Study Ayamama Creek

Aybike Saral, Orkan Ozcan, Nebiye Musaoglu

17:32 - 17:35

The Application of Multitemporal Imageries for Verification of Mud Flow Model in East Java, Indonesia

Gatot H Pramono, Dewayani Sutrisno

17:35 - 17:38

19:30 Excursion

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Tue, 01 Jun 2010 **Tuesday Parallel Sessions 4**

Room XIV Miollis

09:00 Forestry 1, Vegetation

Chairman: Filip Hájek, Forest Management Institute, Czech Republic

In-depth Spatial Assessment of Large Area Forest Cover Maps in Europe

Lucia M Seebach, Peter Strobl, Jesus San-Miguel-Ayanz, Pieter Kempeneers, Fernando Sedano

09:00 - 09:20

Tree Species Classification based on the Analysis of Hyperspectral Remote Sensing Data

Petra M. Krahwinkler, Jürgen Rossmann

09:20 - 09:40

Method for the Estimation of Continuous Forest Variables on Pan European Forest and National Level

Mathias Schardt, Martin Steinegger, Heinz Gallaun

09:40 - 10:00

Classification of TerraSAR-X Imagery for the Characterization of Amazon Tropical Forests

João Roberto dos Santos, José Claudio Mura, Hermann Johann Heinrich Kux, Cesar Edwin Garcia, Steffen Kuntz, Irving Foster Brown, Nara Vidal Pantoja

10:00 - 10:20

Estimation of Forest Cover Evapotranspiration in Algeria with Remotely-sensed Data

Zahira Soudi, Abdelrahmane Hamimed, Khalladi Mederbal

10:20 - 10:23

11:00 Forestry 2

Chairman: Mathias Schardt, Joanneum Research, Graz, Austria

Digital Photogrammetric Survey in the National Forest Inventory (NFI) in Czech Republic

Filip Hajek, Radim Adolt

11:00 - 11:20

Deforestation Analysis by Multi-temporal LANDSAT Imagery in the Bulisa Region – Uganda

Eva S. Malinverni

11:20 - 11:40

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Integration of Remote Sensing, GIS and Terrestrial Forest Inventory in Estimation of Acacia senegal Trees' Parameters

Hassan Elonur Adam, Elmar Csaplovics

11:40 - 12:00

Analysis of the Dynamics of Vegetation Parameters LAI, EVI and FPAR for Forest Areas using MODIS Data

Vanya Naydenova, Petar Dimitrov, Georgi Jelev, Eugenia Roumenina

12:00 - 12:20

The Use of LIDAR Technology for Sustainable Forest Management in Glen Affric

Chue Poh Tan, Iain Woodhouse, Juan Suarez, Colin Edwards, Mike Perks

12:20 - 12:40

Aster Data Utilization to Gain Information about Density in Forest

Maryam Daghestani

12:40 - 12:43

Monitoring the Dynamics of Vegetation Cover and Rain Water Use Efficiency (WUE) for Integrated Management of the Sahelian Savanna

Benoit Toulouse, bernard Lacaze

12:43 - 12:46

14:00 Archaeology 2

Chairman: Rosa Lasaponara, IMAA-CNR, Tito Scalo, Italy

Considering Uncertainty in Archaeological Predictive Modelling: A Case Study in Southern Rhineland-Palatinate (Germany)

Silke Boos, Sabine Hornung, Hartmut Mueller

14:00 - 14:20

Application of Close Range Photogrammetry In San Agustin (Huila), Colombia, World Historical Heritage.

William Barragan

14:20 - 14:40

Probability Modelling of Archaeological Sites with the Use of Geoinformation

Athanasios K Moysiadis, Konstantinos G Perakis

14:40 - 15:00

Sediment Fingerprinting and Spatial Analysis of Landscape Dynamics Using Remote Sensing Data in the Çanaklı Ovası, SW Turkey

Véronique De Laet, G. Verstraeten, E. Paulissen, K D'Haen, B. Dussar, M.

Waelkens

15:00 - 15:03

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Remote Sensing and GIS in Bulgarian Archaeology

Stefan Kirilov Stamenov

15:03 - 15:06

A Medieval Town (Szamotuły) as a Testing Area for Non-invasive Methods – GPR MALA ProEx

Andrzej Kijowski, Marcin Słowik, Wlodek M. Raczkowski

15:06 - 15:09

Documentation of the Abandoned Town La Ciudad Perdida In Peru Combining of VHR Satellite Data and Terrestrial Measurement

Karel Pavelka, Michal Bukovinský, Jirina Svatuskova

15:09 - 15:12

16:00 Archaeology 3

Chairman: Rosa Lasaponara, IMAA-CNR, Tito Scalo, Italy

Airborne Full-waveform Laser Scanning, Aerial Photos and Satellite Images to Detect and Map Archaeological Remains: Monteserico Case Study

Rosa Lasaponara, R. Coluzzi, A. Guariglia, B. & N. Masini

16:00 - 16:20

The Use of Interferometric Synthetic Aperture Radar (InSAR) Cultural Heritage Preservation

Diane L. Evans, Paul A Rosen, Tom G. Farr

16:20 - 16:40

Remote Sensing of the Hydrologic History of Southern Egypt

Tom G Farr, Ron G Blom, Philippe Paillou

16:40 - 17:00

19:30 Excursion

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Wed, 02 Jun 2010 **Keynote Session 2; Discussions and Networking**

Room IX

09:00 Keynote Session 2

The Earth Observation Programme of ESA - Educational Tools for Schools

Francesco Sarti

09:00 - 09:30

**The Planet Action Initiative Supporting Projects on Climate Change Issues:
Update and Achievements**

Louis-François Guerre

09:30 - 10:00

11:00 Discussions and Networking (Rooms: III, VI, VII, IX)

The GEOLAND 2 Coordination Team: Quality Assurance for Remote Sensing Derived Thematic Information (Room IX)

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Wed, 02 Jun 2010 **Wednesday Parallel Session 1**

Room III

14:00 Oceans and Coastal Zones; Hydrology 1

Chairman: Antonio Palucci, ENEA, Frascati, Italy

Coastal ENVISAT RA-2 Data Validation in the Gulf of Cadiz (Spain)

Jesus Gomez-Enri, Patricia Lopez-Leon, Stefano Vignudelli, Paolo Cipollini,
Christine Gommenginger, Scott Gleason, Jerome Benveniste, Pilar Villares

14:00 - 14:20

The Coastal Squeeze on Island Biodiversity in South East Asia and Oceania

Florian T. Wetzel, Helmut Beissmann, Dustin J. Penn, Walter Jetz

14:20 - 14:40

Microphytobenthos Assessment by Hyperspectral Remote Sensing: The New Challenges

Vona Méléder, Farzaneh Kazemipour, Patrick Launeau, Jean-Philippe Combe,
Laurent Barillé

14:40 - 15:00

The Determination and Comparison of Hydrological Properties of Catchment Basins from Topographic Maps, DTM, ALOS/PRISM, and SRTM DEMs. A Case of Part of Roman Water Supply System

Cihan Uysal, Gizem İnce, İrfan Akar, Derya Maktav, James Crow

15:00 - 15:20

Patterns of Seasonal Variability of Near Surface Chlorophyll A in the Northwestern Black Sea Shelf from Ocean Color Satellite Data

Violeta Slabakova, Snejana Moncheva, Natalia Slabakova

15:20 - 15:23

Using High Resolution Ground Survey and LIDAR Data to Monitor Embryo Dune Development in a Conservation Area, North Lincolnshire (UK).

Anne-Lise ALM Montreuil, Joanna Bullard

15:23 - 15:26

Analysis of Geomorphologic Changes of the Po River Ecosystem

Mariano Bresciani, Mirco Boschetti, Daniela Stroppiana, Rossano Bolpagni,
Paolo Villa

15:26 - 15:29

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

16:00 General Assembly
Room IX

19:30 Symposium Dinner

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Wed, 02 Jun 2010 **Wednesday Parallel Session 2**

Room IX

14:00 **Land Use Change Detection 2**

Chairman: Steffen Kuntz, Infoterra GmbH, Immenstaad, Germany

Monitoring Recent Land-use/Land-cover Changes in Arganeraie Biosphere Reserve, Morocco

Bernard Lacaze, Mohamed Faouzi Smiej, Ahmed El Aboudi

14:00 - 14:20

A Review of Change Detection Algorithms and their Suitability for Certain Applications in regard to Operational Implementation

Frank Thonfeld, Antje Hecheltjen, Matthias Braun, Gunter Menz

14:20 - 14:40

Characterizing Land Use Change in a Complex Semi-arid Landscape by Combined Assessment of Land Transformations and Modifications

Achim Roeder, Stella Hubert, Marion Stellmes, Peter Scarth, Joachim Hill, Susana Bautista, Jordi Cortina

14:40 - 15:00

16:00 **General Assembly**

Room IX

19:30 **Symposium Dinner**

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Wed, 02 Jun 2010 **Wednesday Parallel Session 3**

Room VII

14:00 Instruments and Methods 2

Chairman: Preben Gudmandsen, Technical University of Denmark, Lyngby, Denmark

Automated Methods for Change Detection

Manfred Ehlers, Sascha Klonus, Daniel Tomowski, Ulrich Michel, Peter Reinartz

14:00 - 14:20

Estimates of Yield Reduction Caused by Drought

katarzyna Dabrowska - Zielinska, Wanda Kowalik, Alicja Malinska, Maria

Budzynska, Jędrzej Bojanowski, maciej Bartold

14:20 - 14:23

Development of a Spectral Library for Mediterranean Land Cover Types

Ioannis Manakos, K. Manevski, G. P. Petropoulos, M. Elhag, C. Kalaitzidis

14:23 - 14:26

Assessing Human Factors in Remote Sensing Image Analysis: a Web-based Approach

Soetkin Gardin, Sébastien M.J. Van Laere, Frieke M.B. Van Coillie, Frederik

Anseel, Wouter Duyck, Robert R. De Wulf

14:26 - 14:29

Interoperability based on Oracle Locator

Michael Mutale

14:29 - 14:31

16:00 General Assembly

Room IX

19:30 Symposium Dinner

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Wed, 02 Jun 2010 **Wednesday Parallel Session 4**

Room VIII

14:00 3D Remote Sensing 2

Chairman: Mattia Crespi, Universita' di Roma "La Sapienza", Italy

Comparison of ASTER GDEMs with SRTM Height Models

Karsten Jacobsen

14:00 - 14:20

DSM Generation and Filtering from High Resolution Optical Stereo Satellite Data

Peter Reinartz, Pablo d'Angelo, Thomas Krauß, Houda Chaabouni-Chouayakh

14:20 - 14:40

Analysis of 3D Forest Canopy Height Models resulting from Stereo-radargrammetric Processing of TerraSAR-X Images

Roland Perko, Hannes Raggam, Karlheinz Gutjahr, Mathias Schardt

14:40 - 15:00

Accuracy Assessment of the SRTM and ASTER DSMs on a Large Area in Northern Italy

Vittorio Casella, Marica Franzini, Barbara Padova

15:00 - 15:20

Digital Height Models Generation by Means of Optical Stereoscapy and Interferometry – Case Study

Iulia F Dana

15:20 - 15:23

Three-dimensional Visualization of Spatial Development of Torun City (Poland) using Digital Photogrammetric Workstation

Marek Wlodek, Mieczyslaw Kunz

15:23 - 15:26

Learning Tools for Laser Scanner Data: Wiimote and IRpen

Dante Abate, Graziano Furini, Silvio Migliori, Samuele Pierattini

15:26 - 15:29

16:00 General Assembly

19:30 Symposium Dinner

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Thu, 03 Jun 2010 **Thursday Parallel Session 1**

Room III

09:00 Snow and Ice; Hydrology 2

Chairman: Eberhard Parlow, University of Basel, Switzerland

Multi-temporal MODIS Snow Cover Monitoring over the Alpine Regions for Civil Protection Applications

Nico Mölg, Philipp Rastner, Luca Irsara, Claudia Notarnicola, Christian Steurer, Marc Zebisch

09:00 - 09:20

Groundwater Flow Paths Delineation using Remote Sensing Techniques and GIS

Constantine A Papatheodorou

09:20 - 09:23

Using Remote Sensing and GIS Technologies for Hydrological Modelling

Nataliya Ershova, Nataliya Ivanova

09:23 - 09:26

Determination of Surface Water Resources Changes by Multi Temporal Satellite Imagery and Investigations of Groundwater by using Geostatistical Method

Yasemin Ozdemir

09:26 - 09:29

11:00 Interactive Poster Session

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Thu, 03 Jun 2010 **Thursday Parallel Session 2**

Room VI

09:00 **Forest Fires; Disaster Monitoring and Response 2**

Chairman: Ioannis Z. Gitas, Aristotle University of Thessaloniki, Greece

Forest Fires Emissions Estimation Coupling Remotely Sensed Imagery and GIS Modeling

Gherardo Chirici, Enrico Marchi, Marco Ottaviano, Daniela Tonti, Marco Marchetti

09:00 - 09:20

Forest Fire Damage Estimation Using Remote Sensing and GIS

Ugur Alganci, Elif Sertel, Cankut Ormeci

09:20 - 09:40

Fire Impacts on Savanna Vegetation Trends in Madagascar using a Remote-sensing based Statistical Analysis

Anne Jacquin, Véronique Chéret

09:40 - 10:00

Fire-induced Changes in Land Surface Temperature, Surface Albedo and Thermal Inertia Assessed with MODIS

Sander Veraverbeke, Rudi Goossens, Ruben Van De Kerchove, Willem Verstraeten, Stefaan Lhermitte

10:00 - 10:20

MODIS Data Mining to Map Burnt Areas

Carmen Quintano, Alfred Stein, Wietske Bijker, Alfonso Fernández-Manso

10:20 - 10:23

Fractional Type Convolution Pre-filtering to Map Burned Areas

Eduardo Cuesta, Carmen Quintano

10:23 - 10:26

Object-Based Image Analysis of Fraction Images to Map Fire Scars

Oscar Fernández-Manso, Carmen Quintano, Alfonso Fernández-Manso, Yosio Shimabukuro

10:26 - 10:29

11:00 Interactive Poster Session

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Thu, 03 Jun 2010 **Thursday Parallel Session 3**

Room VII

09:00 **Education and Training 2**

Chairman: Rainer Reuter, University of Oldenburg, Germany

Effectiveness Over Time of a Short Training Initiative Related to Free and Open Source Software for Earth Image Processing

Jos M.F. Van Orshoven, Rafal Wawer

09:00 - 09:20

EUFAR On-board Training Opportunities to Advance Airborne Research

Ils Reusen, Jean-Louis Brenguier, Phil Brown, Manfred Wendisch

09:20 - 09:40

The GEO Network for Capacity Building (GEO-Net-CaB)

Sylvie Marzocchi, A. Sand, M. Noort, F. Huynh, JC Desconnet

09:40 - 10:00

Developing Educational Simulations for Remote Sensing in Universities

Henryk Hodam

10:00 - 10:20

Monteverdi - Remote Sensing Software from Educational to Operational Context

Manuel Grizonnet, Jordi Inglada

10:20 - 10:40

11:00 Interactive Poster Session

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Thu, 03 Jun 2010 **Thursday Parallel Sessions 4**

Room VIII

09:00 **Archaeology 4**

Chairman: Lena Halounova, Technical University of Prague, Czech Republic

Facing the Archaeological Looting in Peru by using very High Resolution Satellite Imagery and Local Spatial Autocorrelation Statistics

Rosa Lasaponara, Nicola Masini

09:00 - 09:20

Advancement of Relief Interpretation with Sky-view Factor

Žiga Kokalj, Klemen Zakšek, Krištof Oštir

09:20 - 09:40

GPS RTK Mapping, Kite Aerial Photogrammetry, Geophysical Survey and GIS Based Analysis of Surface Artifact Distribution at the Pre-Hispanic Site of the Castillo de Huarmey, North Coast of Peru

Miron Bogacki, Milosz Giersz, Patrycja Prządka-Giersz, Wiesław Malkowski, Krzysztof Misiewicz

09:40 - 10:00

Application of UAV Documentation of Archaeological Digs and the Derivation of Very High Resolution Digital Elevation Models

Hans-Peter Thamm, Konstantin Scheele, Verena Henrich

10:00 - 10:20

11:00 Interactive Poster Session

30th EARSeL Symposium: Remote Sensing for Science, Education and Culture

Thu, 03 Jun 2010 **Keynote Session 3, Tutorial and Closing Session**

Room XI

14:00 **Keynote Session 3**

Extreme Climate Events in Polar Regions (Arctic)

Jean Claude Gascard

14:00 - 14:30

SEOS - EARSeL's Project on Science Education through Earth Observation for High Schools

Rainer Reuter, and the SEOS Project Team

14:30 - 15:00

ESA's Earth Observation Programmes - Achievements, Current Status and Plans for the Future

Volker Liebig, Michael Rast

15:00 - 15:30

16:00 **Tutorial**

CNES Application Tools for Remote Sensing from Space

Aurélie Sand, Manuel Grizonnet

16:00 - 17:00

17:00 **Symposium Closing**

19:30 **Gala Dinner**