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7th European Conference on Synthetic Aperture Radar

June 2 - 5, 2008 Friedrichshafen, Germany

EUSAR is jointly organised by:

ITG (VDE) Information Technology Society of VDE

DLR German Aerospace Center

FGAN Forschungsgesellschaft für Angewandte Naturwissenschaften e.V.

EADS European Aeronautic Defence and Space Company

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Message from the Conference Chairman

It is with great pleasure that I welcome all the participants to EUSAR 2008, the 7th European Conference on Synthetic Aperture Radar, perhaps the most important international conference dedicated to SAR techniques, technology and applications.

The location, Friedrichshafen at Lake Constance, is a beautiful region in Southern Germany well known for its high-tech industries which had their beginnings in the companies started by the airship and aircraft pioneers Zeppelin and Dornier. Over the last 20 years, the activity in SAR has increased making the region a leading centre for space borne Radar.

In 1998, the second EUSAR conference was held in Friedrichshafen. At that time the SAR community could analyse and discuss the results of the successful SAR missions such as ERS-1, ERS-2, SIR-C/XSAR and Radasat-1 while anticipating results from new missions like ENVISAT/ASAR which used a phased array antenna technology and the interferometric mission SRTM on Space Shuttle. As these missions were of a more scientific and experimental nature, the new and emerging technologies and SAR applications indicated the potential of space borne SAR.

Ten years later, EUSAR has returned to the lakeside location and in the meantime space based SAR has evolved strongly and matured by adding commercial applications and creating new markets. Since the last EUSAR event there have been several successful launches of SAR satellites producing SAR images and services of exceptional quality. These include TerraSAR-X, SAR-Lupe, Cosmo Skymed, Radarsat- 2, TEC-SAR, and ALOS/PALSAR. The future will see new SAR based operational services such as ESA's Sentinel-1 for GMES and the PPP based 3D Radar mission TanDEM-X. Various new SAR projects are running or planned on nearly every continent. During EUSAR 2008, we will see new trends leading to the next generation of SAR products like Multi-static SAR, PolInSAR, 3D-SAR and Digital Beamforming SAR. You can expect an exciting and rewarding conference with top level contributions from 37 countries.

I look forward to sharing an exciting conference which should provide a platform for fruitful discussions. I hope you will enjoy you stay at Lake Constance and visit its historic towns and villages and view the alpine scenery.

Sebastian Riegger, EADS Astrium
General Chairman EUSAR 2008

Message from the Program Chairman

Dear EUSAR Conference Member,
On behalf of the technical program board I would like to welcome you to the EUSAR 2008 conference.

The overwhelming response to our call for papers indicates the popularity of this conference. The enthusiasm has certainly increased due to the successful launches of the latest SAR Missions and the excellent status of future programs.

For EUSAR 2008, we received 370 Abstracts from 37 countries all over the world. After review by the program committee, 200 papers were selected for oral presentation and 120 papers will be displayed for interactive poster presentations.

Thanks to this response, all important fields of SAR techniques, technology and exploitation are covered by the contributions. EUSAR 2008 starts with a plenary session consisting of two outstanding keynote speeches.

During the three conference days, oral sessions will be divided into four groups, each being held in a separate hall and running concurrently. We have arranged the parallel sessions such that overlap of related research areas is kept to a minimum. We will close the 1st day of the conference on Tuesday evening with the traditional piano recital and the reception. Posters will be displayed throughout the three conference days. Special attention should be given to the interactive poster presentation on Wednesday evening prior to our conference dinner. A Best Paper Award, and three Student Best Paper Awards will be assigned and announced in the closing session on the last day of the conference. Finally, I would like to invite you to join the technical tour of the Astrium premises on Friday which provides you with a close-up view of the radar satellites TanDEM-X, Cryosat and METOP/ASCAT.

I would like to thank the conference board for their contribution to the technical program. I would also like to express my appreciation to the program committee for their competent evaluation of the large number of paper submissions, as well as to the invited chairs for their careful preparation of the invited sessions.

Christoph Heer, EADS Astrium
Technical Program Chairman EUSAR 2008

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Conference Events - Overview

Monday, June 02, 2008-05-14

08:00 - 18:00	Registration
08:00 - 17:30	Tutorials
10:30 - 11:00	Coffee Break
12:30 - 14:00	Lunch Break
15:30 - 16:00	Coffee Break

Tuesday, June 03, 2008

08:00 - 18:00	Registration
09:30 - 22:00	Exhibition
09:00 - 10:30	Oral Sessions Welcome
10:30 - 11:00	Coffee Break
11:00 - 12:20	Oral Sessions
12:20 - 13:45	Lunch Break
13:45 - 15:25	Oral Sessions
15:25 - 15:55	Coffee Break
18:00 - 22:00	Get Together (Foyer)

Wednesday, June 04, 2008

08:00 - 18:00	Registration
08:30 - 19:00	Exhibition
08:30 - 10:10	Oral Sessions
10:10 - 10:40	Coffee Break
10:40 - 12:20	Oral Sessions
12:20 - 13:45	Lunch Break
13:45 - 15:25	Oral Sessions
15:25 - 15:55	Coffee Break
15:55 - 17:35	Oral Sessions
17:35 - 19:00	Poster Presentation (drinks + snacks)
19:30 - 22:30	Conference Dinner (Boat Tour on Lake Constance)

Thursday, June 05, 2008

08:00 - 16:00	Registration
08:30 - 16:00	Exhibition
08:30 - 10:10	Oral Sessions
10:10 - 10:40	Coffee Break
10:40 - 12:20	Oral Sessions
12:20 - 13:45	Lunch Break
13:45 - 15:25	Oral Sessions
15:30 - 16:00	Awards Presentation and Closing Remarks (Hugo-Eckener-Hall)

Friday, June 06, 2008

09:00 - 12:00	Technical Tour: Visit of the ASTRIUM Integrationszentrum

EUSAR 2008 Programm Overview

Monday, June 02, 2008	Lobby	Kapitän-Flemming-Room	Kapitän-Lehmann-Room	Graf-Soden-Room
08:00 - 17:30	Registration (Entrance)			
09:00 - 10:30		Bi-/multistatic SAR	SARAdvanced SAR Interferometry / MTI	Advanced Image Exploitation Polarimetry / PolInSAR
		Introduction into bi-/multistatic SAR	Introduction into SAR Interferometry	Basics of SAR polarimetry
10:30 - 11:00	Coffee Break			
11:00 - 12:00		Overview of existing bistatic SAR processing	From SAR interferometry to 3D imaging	Application of SAR polarimetry
12:00 - 12:30			Multidimensional SAR imaging I	
12:30 - 14:00	Lunch Break			
14:00 - 14:45		Applications, parameter design, and experimental aspects	Multidimensional SAR imaging II.	SAR image exploitation
14:45 - 15:00				
15:00 - 15:30		Progress in bistatic SAR concepts & algorithms I	Space based MTI techniques	
15:30 - 16:00	Coffee Break			
16:00 - 16:30		Progress in bistatic SAR concepts & algorithms II	Airborne SAR/MTI	Advanced image interpretation
16:30 - 16:45		Advanced mono- and bistatic ISAR techniques	Interference suppression with multich. SAR	
16:45 - 17:30				

Tuesday, June 03, 2008

	Lobby	Alfred-Colsman	Hugo-Eckener	Ludwig-Dürr	Theodor-Kober
09:00 - 10:30	**Welcome**				
09:30 - 10:30	**Plenary**				
10:30 - 11:00	**Coffee Break** Coffee will be served in exhibition area				
11:00 - 12:20	Exhibition	1.1 Advanced SAR Technology	1.2 TerraSAR-X / TanDEM-X Commercial Exploitation (invited)	1.3 Polarimetric SAR I	1.4 Bistatic, Multistatic and Multi-Satellite SAR I
12:20 - 13:45	**Lunch Break** Lunch will be served in exhibition area				
13:45 - 15:25	Exhibition	2.1 SAR Processing, Image Enhancement, Post Processing, Data Fusion	2.2 TerraSAR-X Commissioning Phase Results (invited)	2.3 Polarimetric SAR II	2.4 Bistatic, Multistatic and Multi-Satellite SAR II
15:25 - 15:55	**Coffee Break** Coffee will be served in exhibition area				
15:55 - 17:35	Exhibition	3.1 Near-Field Synthetic Apertur Approaches for Security Applications (invited)	3.2 First Scientific TerraSAR-X Results (invited)	3.3 Polarimetric SAR III	3.4 Inverse and Circular SAR; SAR Simulation
18:00 - 22:00	**Get Together (Foyer)**				

Wednesday, June 04, 2008

	Lobby	Alfred-Colsman	Hugo-Eckener	Ludwig-Dürr	Theodor-Kober
08:30 - 10:10	Exhibition	4.1 Low Frequency SAR for Forest Mapping: State of the Art and Challenges in Spaceborne Implementation (invited)	4.2 Missions: RADARSAT-2, COSMO-Skymed, Cassini	4.3 New Techniques in POLInSAR I (invited)	4.4 Three-dimensional SAR Techniques I (invited)
10:10 - 10:40	**Coffee Break** Coffee will be served in exhibition area				
10:40 - 12:20	Exhibition	5.1 Sub-Surface Imaging and Sounding I (invited)	5.2 Next Generation SAR and Future Missions	5.3 New Techniques in POLInSAR II (invited)	5.4 Three-dimensional SAR Techniques II (invited)
12:20 - 13:45	**Lunch Break** Lunch will be served in exhibition area				
13:45 - 15:25	Exhibition	6.1 Sub-Surface Imaging and Sounding II (invited)	6.2 Sentinel-1 I (invited)	6.3 Urban Remote Sensing (invited)	6.4 Bistatic SAR I (invited)
15:25 - 15:55	**Coffee Break** Coffee will be served in exhibition area				
15:55 - 17:35	Exhibition	7.1 Calibration and Verification I	7.2 Sentinel-1 II (invited)	7.3 Advanced SAR Instruments, Modes and Processing	7.4 Bistatic SAR II (invited)
17:35 - 19:00	**Poster Presentation (drinks + snacks)**				
19:30 - 22:30	**Conference Dinner (Boat Tour on Lake Constance)**				

Thursday, June 05, 2008	Lobby	Alfred-Colsman	Hugo-Eckener	Ludwig-Dürr	Theodor-Kober
08:30 - 10:10	Exhibition	8.1 Calibration and Verification II	8.2 TanDEM-X I	8.3 MTI and Change Detection I (invited)	8.4 Innovative Digital Beamforming SAR Systems (invited)
10:10 - 10:40	**Coffee Break**	Coffee will be served in exhibition area			
10:40 - 12:20	Exhibition	9.1 Feature Extraction, Image Classification and Segmentation I	9.2 TanDEM-X II	9.3 MTI and Change Detection II (invited)	9.4 Differential Interferometry, Multi-Pass SAR and SAR Tomography
12:20 - 13:45	**Lunch Break**	Lunch will be served in exhibition area			
13:45 - 15:25	Exhibition	10.1 Feature Extraction, Image Classification and Segmentation II	10.2 Airborne and UAV SAR	10.3 Along-track Interferometry, MTI, STAP	10.4 SAR Interferometry (invited)
15:30 - 16:00	**Awards Presentation and Closing Remarks (Hugo-Eckener-Hall)**				

TUTORIALS

Monday, June 2, 2008

Kapitän-Flemming-Room
T1 Tutorial: Bi-/multistatic-SAR

09:00 **Introduction into bi-/multistatic SAR**
Chris Baker, UCL, London, UK

10:30-11:00 Coffee break

11:00 **Overview of existing bistatic SAR processing**
Mehrdad Soumekh, Univ. of New York, USA

12:30-14:00 Lunch break

14:00 **Applications, parameter design, and experimental aspects**
Joachim Ender, FGAN, Wachtberg, Germany

15:00 **Progress in bistatic SAR concepts & algorithms I**
Otmar Loffeld, Univ. of Siegen, Germany

15:30-16:00 Coffee break

16:00 **Progress in bistatic SAR concepts & algorithms II**
Otmar Loffeld, Univ. of Siegen, Germany

16:30 **Advanced mono- and bistatic ISAR techniques**
Jens Rosebrock, FGAN, Wachtberg, Germany

17:30 Discussion / End of Tutorial 1

Kapitän-Lehmann-Room
T2 Tutorial: Advanced SAR Interferometry / MTI

09:00 **Introduction into SAR Interferometry**
Michael Eineder, DLR, Oberpfaffenhofen, Germany

10:30-11:00 Coffee break

11:00 **From SAR interferometry to 3D imaging**
Gianfranco Fornaro, CNR-IREA, Italy

12:00 **Multidimensional SAR imaging I**
Fabrizio Lombardini, Univ. of Pisa, Italy

12:30-14:00 Lunch break

14:00 **Multidimensional SAR imaging II**
Fabrizio Lombardini, Univ. of Pisa, Italy

14:45 **Space based MTI techniques**
Chuck Livingstone, DRDC, Ottawa, Canada

15:30-16:00 Coffee break

16:00 **Airborne SAR/MTI**
Joachim Ender, FGAN, Wachtberg, Germany

16:45 **Interference suppression with multich. SAR**
Luke Rosenberg, DSTO, Edinburgh, AU

17:30 **Discussion / End of Tutorial 2**

Graf-Soden-Room
T3 Tutorial: Advanced Image Exploitation, Polarimetry / PolInSAR

09:00 **Basics of SAR polarimetry**
Wolfgang Boerner, Univ. of Illinois, Chicago, USA

10:30-11:00 Coffee break

11:00 **Application of SAR polarimetry**
Andreas Reigber, DLR, Oberfaffenhofen, Germany

12:30-14:00 Lunch break

14:00 **SAR image exploitation**
Uwe Stilla, TU Munich, Germany

15:30-16:00 Coffee break

16:00 **Advanced image interpretation**
Stefan Hinz, TU Munich, Germany

17:30 **Discussion / End of Tutorial 3**

Tuesday, June 3, 2008

Hugo Eckener
Conference Opening

Franz Burger, BMWi (TBC)
Ludwig Baumgarten, DLR (TBC)

10:30-11:00 Coffee break

Alfred-Colsman
Session 1.1: Advanced SAR Technology

Chairman: Christoph Heer, EADS Astrium GmbH, Germany

11:00 **(1.1.1) Advanced Onboard technologies for ISRO's RISAT-1 follow on L-Band Polarimetric SAR**
Nilesh Desai, Saravana Kumar, Jethabhai Vachhani, Virendra Gujraty, Space Applications Centre (ISRO), India

11:20 **(1.1.2) On Space-based Synthetic Aperture Radar Antennas**
Cornelis van't Klooster, European Space Agency Estec, The Netherlands

11:40 **(1.1.3) One-Bit Digitization for DBF-SAR: Too Good to be True**
Christoph Schaefer, Christian Fischer, Michael Völker, EADS Astrium GmbH, Germany

12:00 **(1.1.4) A pod with a very long broadband time steered array antenna for PAMIR**
Helmut Wilden, Olaf Saalmann, Alfred Schmidt, Olaf Peters, Andreas Brenner, FGAN-FHR, Germany

12:20-13:45 Lunch break

Hugo-Eckener

Session 1.2: TerraSAR-X/TanDEM-X Commercial Exploitation (invited)

Chairmen: Nikolaus Faller, Infoterra GmbH, Friedrichshafen; Bernd Scheuchl, Infoterra GmbH, Friedrichshafen, Germany

11:00 **(1.2.1) Current mapping and monitoring challenges and potential of high-resolution spaceborne SAR application for emerging nations in equatorial regions**
Rudolf Matindas, TBC Bakosurtanal, Indonesia

11:10 **(1.2.2) TerraSAR-X – an introduction to system capabilities, basic products and value-added products**
Jürgen Janoth, Bernd Scheuchl, Nikolaus Faller, Infoterra GmbH, Friedrichshafen, Germany

11:25 **(1.2.3) TerraSAR-X high resolution SAR data: Ground motion and mapping applications for infrastructure, oil & gas and public health domain**
Oscar Mora, Johanna Granda, Erlinda Biescas, ALTAMIRA Information, Spain; Anne Urdiroz, ALTAMIRA Information, France

11:40 **(1.2.5) First assessment of results for commercial use of TerraSAR-X in Australia**
John Douglas, Apogee Imaging, Australia

11:55 **(1.2.6) Application of TERRASAR-X data for monitoring potential landslide and karst areas of railways and gas-main pipelines**
Alexander Zakharov, JSC-AMT, Russia

12:10 **(1.2.4) The Use of Radar in Geospatial Intelligence, Image Analysis**
Tom Last, ImStrat Corporation, Canada

12:25-13:45 Lunch break

Ludwig-Dürr

Session 1.3: Polarimetric SAR I

Chairmen: Jakob van Zyl, Jet Propulsion Laboratory, USA; Marian Werner, DLR, Germany

11:00 **(1.3.1) Hybrid-Quadrature-Polarity SAR Architecture**
Keith Raney, Johns Hopkins University, USA

11:20 **(1.3.2) Compact Polarimetric Observation using Phased Array Antenna and Its Case Study for PALSAR**
Takashi Fujimura, Tsunekazu Kimura, NEC Corporation, Japan

11:40 **(1.3.3) Requirements for Model-Based Polarimetric Decomposition**
Jakob van Zyl, Yunjin Kim, Jet Propulsion Laboratory, Motofumi Arii, California Institute of Technology, USA

12:00 **(1.3.4) Investigation on the Performance of Compact Polarimetry in SAR Interferometry**
Marco Lavalle, Domenico Solimini, University of Rome Tor Vergata, Italy; Eric Pottier, University of Rennes, France; Yves-Louis Desnos, ESA/ESRIN, Italy

12:20-13:45 Lunch break

Theodor-Kober

Session 1.4: Bistatic, Multistatic and Multi-Satellite SAR I

Chairmen: Gerhard Krieger, DLR; Christian Fischer, EADS Astrium GmbH, Germany

11:00 **(1.4.1) Bistatic SAR Experiment with the Ingara Imaging Radar: Preliminary Results**
Alvin Goh, Doug Gray, University of Adelaide, Mark Preiss, Nick Stacy, DSTO, Australia

11:20 **(1.4.2) Hybrid Bistatic SAR Experiment TerraPAMIR – Geometric Description and Point Target Simulation**
Ulrich Gebhardt, Forschungsgesellschaft für Angewandte Naturwissenschaften e.V. (FGAN), Otmar Dr. Loffeld, Holger Nies, Center for Sensorsystems (ZESS), University of Siegen, Germany

11:40 **(1.4.3) Bistatic Experiment Using TerraSAR-X and DLR's new F-SAR System**
Stefan Baumgartner, Marc Rodriguez-Cassola, Anton Nottensteiner, Ralf Horn, Rolf Scheiber, Marco Schwerdt, Ulrich Steinbrecher, Robert Metzig, Markus Limbach, Josef Mittermayer, Gerhard Krieger, Alberto Moreira, German Aerospace Center (DLR), Germany

12:00 **(1.4.4) A real time simulation model for estimation of position and orientation of two airborne SAR systems platforms in Matlab/Simulink: description, analysis and implementation**
Giovanni Marino, Matthias Weiß, FGAN, Germany

12:20-13:45 Lunch break

Alfred-Colsman
Session 2.1: SAR Processing, Image Enhancement, Post Processing, Data Fusion

Chairman: Franz Lang-Schnee, EADS Deutschland GmbH, Germany

13:45 **(2.1.1) Onboard Radar Processor of SOSTAR-X**
Franz Lang-Schnee, Jörg Hippler, Falk Ringel, Dietmar Weber, EADS Deutschland GmbH, Germany

14:05 **(2.1.2) SAR amplitude filtering using TV prior and its application to building delineation**
Florence Tupin, Marc Sigelle, Telecom Paris, Loic Denis, Ecole Nationale Supérieure de Chimie Physique Electronique; Jerome Darbon, Epita Research and Development Laboratory; Céline Tison, CNES, France

14:25 **(2.1.3) Wave Number Domain Processing on Squinted Spotlight SAR Data of the SOSTAR-X Sensor**
Jörg Hippler, EADS Deutschland GmbH, Germany

14:45 **(2.1.4) Fast Factorized Backprojection as Applied to X-Band Data for Curved Flight Paths**
Michael Brandfass, EADS Deutschland GmbH, Germany

15:05 **(2.1.5) Ship traffic monitoring using multi-polarisation satellite SAR images combined with AIS reports**
Camilla Brekke, Oystein Helleren, Richard Olsen, FFI; Dan Johan Weydahl, Norwegian Defence Research Establishment (FFI), Norway

15:25-15:55 Coffee break

Hugo-Eckener
Session 2.2: TerraSAR-X Commissioning Phase Results (invited)

Chairmen: Josef Mittermayer, Birgit Schättler, German Aerospace Center, Germany

13:35 **(2.2.1) TerraSAR-X Mission Status**
Stefan Buckreuss, German Aerospace Center (DLR), Germany

13:55 **(2.2.2) TerraSAR-X Instrument Characterization/ Verification**
Robert Metzig, Benjamin Bräutigam, Donata Polimeni, Johannes Böer, Markus Bachmann, Josef Mittermayer, German Aerospace Center (DLR), Germany

14:15 **(2.2.3) TerraSAR-X System Performance & Command Generation**
Josef Mittermayer, Ulrich Steinbrecher, Adriano Meta, Nuria Tous-Ramon, Steffen Wollstadt, Marwan Younis, Jose Marquez, Daniel Schulze, Carlos Ortega, German Aerospace Center (DLR), Germany

14:35 **(2.2.4) TerraSAR-X Calibration Results**
Marco Schwerdt, Benjamin Bräutigam, Markus Bachmann, Björn Döring, German Aerospace Center, Germany

14:55 **(2.2.5) TerraSAR-X SAR Payload Data Processing: Results from Commissioning and Early Operational Phase**
Helko Breit, Birgit Schättler, Thomas Fritz, Heiko Damerow, Egbert Schwarz, German Aerospace Center; Ulrich Balss, Technical Univerity of Munich, Germany

15:15 **(2.2.6) TerraSAR-X Image Products: Characterization and Verification**
Thomas Fritz, Helko Breit, Birgit Schättler, Marie Lachaise, German Aerospace Center (DLR), Michael Eineder, German Aerospace Center (DLR); Ulrich Balss, Technical Univerity of Munich, Germany

15:25-15:55 Coffee break

Ludwig-Dürr

Session 2.3: Polarimetric SAR II

Chairmen: Thomas Ainsworth, Naval Research Laboratory; Wolfgang Boerner, UIC Chicago, USA

13:45 **(2.3.1) Analysis of Spatial Statistics in Polarimetric SAR Data Using Wavelet Signatures**
Gianfranco De Grandi, European Commission, Italy; Attilio Gambardella, Maurizio Migliaccio, Università Napoli Parthenope, Italy; Jan Kropacek, European Commision, Czech Republic; Thomas Ainsworth, Naval Research Laboratory, USA

14:05 **(2.3.2) Polarimetric SAR Coherent Change Detection**
Mark Preiss, Nick Stacy, DSTO, Australia

14:25 **(2.3.3) Statistical evaluation and bias removal of multi-look effect on En-tropy/Alpha/Anisotropy of polarimetric target decomposition**
Jong-Sen Lee, Thomas Ainsworth, John Kelly, Naval Research Laboratory, USA; Carlos López-Martínez, Universitat Politècnica de Catalunya (UPC), Spain

14:45 **(2.3.4) On Scattering Model Decomposition with Pol-InSAR data**
Hiroyoshi Yamada, Hitoshi Onoda, Yoshio Yamaguchi, Niigata University, Japan

15:05 **(2.3.5) Recent Advances in Polarimetric and Interferometric Radar Remote Sensing**
Wolfgang Boerner, UIC Chicago, USA

15:25-15:55 Coffee break

Theodor-Kober

Session 2.4: Bistatic, Multistatic and Multi-Satellite SAR II

Chairmen: Gerhard Krieger, DLR; Christian Fischer, EADS Astrium GmbH, Germany

13:45 **(2.4.1) Performance Analysis of the Validity Constraints of the Bistatic SAR Processing**
Qurat Ul-Ann, Otmar Dr. Loffeld, Holger Nies, Robert Wang, Koba Natroshvili, Stefan Knedlik, Center for Sensorsystems (ZESS), University of Siegen, Germany

14:05 **(2.4.2) A Numerical Solution for Azimuth Invariant Bistatic SAR Processing Using Geometry- based Bistatic Formula**
Jinshan Ding, Otmar Dr. Loffeld, Center for Sensorsystems (ZESS), University of Siegen, Germany; Zhenhua Zhang, National Lab for Radar Signal Processing; Zheng Bao, Xidian University, P. R. China

14:25 **(2.4.3) Bistatic Experiment with Ultra-Wideband VHF-band Synthetic-Aperture Radar**
Lars Ulander, Björn Flood, Per-Olov Frölind, Anders Gustavsson, Tommy Jonsson, Johan Rasmusson, Gunnar Stenström, FOI, Sweden; Arnold Barmettler, Erich Meier, University Zurich, Switzerland

14:45 **(2.4.4) Temporal Alignment and Doppler Centroid Estimation in Opportunistic Bistatic SAR Systems**
Paco Lopez-Dekker, Jordi Mallorqui, Pau Serra-Morales, Universitat Politecnica de Catalunya (UPC), Spain

15:05 **(2.4.5) Swiss Airborne Monostatic and Bistatic Dual-Pol SAR Experiment at the VHF-Band**
Arnold Barmettler, Lukas Zuberbühler, Erich Meier, University Zurich, Switzerland; Lars Ulander, Anders Gustavsson, FOI, Sweden; Peter Wellig, armasuisse, Switzerland

15:25-15:55 Coffee break

Alfred-Colsman

Session 3.1: Near-Field Synthetic Apertur Approaches for Security Applications (invited)

Chairmen: Helmut Essen, FGAN-FHR, Markus Peichl; German Aerospace Center (DLR), Germany

15:55 **(3.1.1) Interferometric Focussing for the Imaging of Humans**
Sebastian Bertl, Alexander Dallinger, Juergen Detlefsen, Technische Universitaet Muenchen, Lehrstuhl fuer Hochfrequenztechnik, Germany

16:15 **(3.1.2) 3D SAR Processing for a Fast Scanning Millimetre-Wave Short Range Imaging System**
Frank Gumbmann, University of Erlangen-Nuremberg, Germany

16:35 **(3.1.3) Millimetre Wave Near Field SAR Scanner for Concealed Weapon Detection**
Manfred Haegelen, Helmut Essen, Gunnar Briese, FGAN-FHR; Axel Tessmann, Fraunhofer IAF, Germany

16:55 **(3.1.4) A Concept of Microwave System for the Inspection of People and Luggage**
Igor Gorshkov, Ivan Grokhotkov, APSTEC Ltd.; Valery Averianov, Researcher, Russia; Andrey Kuznetsov, Director of the Department; Alexey Evsenin, Researcher, KRI, Russia

17:15 **(3.1.5) Near-field microwave imaging radiometers for security applications**
Markus Peichl, Stephan Dill, Matthias Jirousek, Helmut Suess, German Aerospace Centre (DLR), Germany

17:35 **(3.1.6) Stand-off detection of suspicious concealed objects in centimetre- and millimetre-wave range using sampling phased array principle and sparse array**
Roman Pinchuk, Christoph Sklarczyk, Andrey Bulavinov, Michael Kröning, Fraunhofer-IZFP, Germany

Get Together (18:00-20:30) see page XXX

Hugo-Eckener

Session 3.2: First Scientific TerraSAR-X Results (invited)

Chairmen: Achim Roth (DLR; Irena Hajnsek, DLR Oberpfaffenhofen, Germany

15:55 **(3.2.1) Crop characterisation at X-band Pol-InSAR**
Irena Hajnsek, Konstantinos Papathanassiou, German Aerospace Center, Germany

16:15 **(3.2.2) Coherent Scatterers (CSs) Detection in TerraSAR-X Data**
Luca Marotti, Rafael Schneider, Konstantinos Papathanassiou, Irena Hajnsek, German Aerospace Center (DLR), Oberpfaffenhofen, Germany

16:35 **(3.2.3) Monitoring Alpine Glacier activity by a combined use of TerraSAR-X images and continuous GPS measurements – the Argentière glacier experiment**
Emmanuel Trouve, Ivan Petillot, Philippe Bolon, Université de Savoie, Michel Gay, INPG, Lionel Bombrun, Images and Signals Laboratory; Jean-Marie Nicolas, Florence Tupin, GET - Télécom Paris; Andrea Walpersdorf, Nathalie Cotte, Université Joseph Fourier, France; Irena Hajnsek, Martin Keller, German Aerospace Center (DLR) Oberpfaffenhofen, Germany

16:55 **(3.2.4) Use of TerraSAR-X data for oceanography**
Susanne Lehner, Johannes Schulz-Stellenfleth, Stephan Brusch, Xiao Ming Li, German Aerospace Center (DLR), Germany

17:15 **(3.2.5) Extraction of water and flood areas from SAR data**
Thomas Hahmann, Sandro Martinis, André Twele, Achim Roth, German Aerospace Center (DLR); Manfred Buchroithner, Dresden University of Technology, Germany

Get Together (18:00-20:30) see page XXX

Ludwig-Dürr

Session 3.3: Polarimetric SAR III

Chairmen: Keith Raney, Johns Hopkins University, USA; Cornelis van 't Klooster, European Space Agency Estec, The Netherlands

15:55 (**3.3.1) Pol-SAR time series for soil moisture estimation under vegetation**
Thomas Jagdhuber, Irena Hajnsek, Helmut Schoen, Konstantinos Papathanassiou, German Aerospace Center, Germany

16:15 **(3.3.2) Recent advances in POL(in)SAR remote sensing & stress-change monitoring of wetlands with applications to the Suncheon Bay Tidal Flats**
Ji-Eun Kim, Seoul National University, Korea; Sang-Eun Park, University of Rennes 1, France; Duk-jin Kim, Korea Aerospace Research Institute (KARI), Korea; Wolfgang Boerner, UIC Chicago, USA; Wooil Moon, University of Manitoba, Winnipeg, Canada

16:35 **(3.3.3) Investigation of Multiple CSs inside a Resolution Cell by means of PolInSAR**
Koichi Iribe, Rafael Schneider, Konstantinos Papathanassiou, Irena Hajnsek, German Aerospace Center, Oberpfaffenhofen, Germany

16:55 **(3.3.4) POLSAR Image Analysis of Wetlands Using Fully Polarimetric Quad-SAR Data**
Yoshio Yamaguchi, Hiroyoshi Yamada, Yuki Yajima, Ryoichi Sato, Niigata University, Japan; Wolfgang Boerner, UIC Chicago, USA

17:15 **(3.3.5) Pol-InSAR Simulations in Forest Bistatic Scattering**
Ludovic Villard, Cooperation between ONERA and DLR, France; Pierre Borderies, ONERA, France; Konstantinos Papathanassiou, Irena Hajnsek, German Aerospace Center, German Aerospace Center (DLR) Oberpfaffenhofen, Germany

17:35 **(3.3.6) Extinction estimation over land ice using long-wavelength Pol-InSAR**
Jayanti Sharma, Irena Hajnsek, Konstantinos Papathanassiou, German Aerospace Center, Germany

Get Together (18:00-20:30) see page XXX

Theodor-Kober

Session 3.4: Inverse and Circular SAR; SAR Simulation

Chairman: Patrick Berens, FGAN, Germany

15:55 **(3.4.1) GMTI Systems Simulation using the SAR Simulation Tool PIRDIS**
Jochen Meyer-Hilberg, Christoph Neumann, Hermine Senkowski, EADS Deutschland GmbH, Germany

16:15 **(3.4.2) A refined Micro-Doppler analysis of pedestrians in ISAR imaging**
Antoine Ghaleb, Luc Vignaud, ONERA, France; Jean-Marie Nicolas, GET - Télécom Paris, France

16:35 **(3.4.3) Comparison of SAR simulation concepts for the analysis of high-resolution SAR data**
Horst Hammer, FGAN, Germany; Timo Balz, Wuhan University, P. R. China; Uwe Soergel Ulrich Thoennessen, FGAN-FOM, Uwe Stilla, Technische Universitaet Muenchen (TUM), Germany

16:55 **(3.4.4) Assessment of physical limitations of High Resolution on targets at X-band from Circular SAR experiments**
Hubert Cantalloube, Elise Colin, ONERA, France

17:15 **(3.4.5) First Results on VHF-band SAR Imaging using Circular Tracks**
Per-Olov Frölind, Lars Ulander, Anders Gustavsson, FOI, Sweden

17:35 **(3.4.6) MOCEM: An 'all in one tool' to simulate SAR image**
Christian Cochin, DGA, France; Daniel Le Hellard, Franck Aubineau, Philippe Gosselin, Alyotech - Cril Technology, France

Get Together (18:00-20:30)

Ludwig-Dürr

18:00 **Keynote Speaker: Radar Reflections: A Historical Perspektive of the JPL Radar Program**

Ed Caro (JPL)

19:00 Refreshment

Hugo Eckener

Welcome address and Piano Recital

19:15 *Josef Büchelmeier, Mayor of Friedrichshafen*

19:30 *Piano Recital "A piano lesson", Ricjhard Klemm*

Welcome Reception

Wednesday, June 4, 2008

Alfred-Colsman

Session 4.1: Low Frequency SAR for Forest Mapping: State of the Art and Challenges in Spaceborne Implementation (invited)

Chairmen: Malcolm Davidson, ESA/ESTEC, The Netherlands; Konstantinos Papathanassiou, German Aerospace Center, Germany

8:30 **(4.1.1) Derivation of mission requirements for long-wavelength forest biomass missions**
Malcolm Davidson, ESA/ESTEC, The Netherlands

8:50 **(4.1.2) PALSAR L-band Polarimetry – Two years experiences for calibration**
Masanobu Shimada, JAXA, Japan; Masato Ohki, Japan Aerospace Exploration Agency, Japan

9:10 **(4.1.3) Mapping Ionospheric TEC using Faraday Rotation in Full-Polarimetric L-Band SAR Data**
Franz Meyer, University of Alaska Fairbanks; Jeremy Nicoll, Alaska Satellite Facility, USA

9:30 **(4.1.4) Quantifying Temporal Decorrelation over Boreal Forest at L- and P-band**
Seung-Kuk Lee, Florian Kugler, Konstantinos Papathanassiou, Irena Hajnsek, German Aerospace Center (DLR), Oberpfaffenhofen, Germany

9:50 **(4.1.5) Advanced Concepts for Ultra-Wide-Swath SAR Imaging**
Gerhard Krieger, Nicolas Gebert, Marwan Younis, Federica Bordoni, Anton Patyuchenko, Alberto Moreira, German Aerospace Center (DLR), Germany

10:10-10:40 Coffee break

Hugo-Eckener

Session 4.2: Missions: RADARSAT-2, COSMO-Skymed, Cassini

Chairmen: Sebastian Riegger, EADS Astrium, Germany; Daniel De Lisle, Canadian Space Agency, Canada

8:30 **(4.2.1) The Cassini Radar Investigation**
Stephen Wall, California Institute of Technology, USA; Enrico Flamini, Agenzia Spaziale Italiana, Italy

8:50 **(4.2.2) RADARSAT-2 Program Update**
Daniel De Lisle, Canadian Space Agency, Canada

9:10 **(4.2.3) The Cosmo SkyMed Satellite Constellation for Earth Observation and applications**
Luciana Di Domenico, e-GEOS S.p.A.; Federica Mastracci, Telespazio, Italy

9:30 **(4.2.4) Operational services and applications based on the Integrated use of satellite imagery and geospatial information**
Luciana Di Domenico, e-GEOS S.p.A.; Federica Mastracci, Telespazio, Italy

9:50 **(4.2.5) RADARSAT-2 Mission Status: Capabilities Demonstrated and Image Quality Achieved**
Anthony Luscombe, Alan Thompson, Kenneth James, Peter Fox, MDA, Canada

10:10 **(4.2.6) RADARSAT-2 SAR Imaging Performance and Calibration**
Pierre Le Dantec, Kenneth James, Alan Thompson, Peter Fox, MDA Geospatial Services, Canada

10:10-10:40 Coffee break

Ludwig-Dürr

Session 4.3: New Techniques in POLInSAR I (invited)

Chairmen: Eric Pottier, University of Rennes, France; Shane Cloude, AEL Consultants, United Kingdom

8:30 **(4.3.1) Compact PolInSAR and Ionosphere**
Pascale Dubois-Fernandez, My-Linh Truong-Loi, Sebastien Angelliaume, ONERA, Jean-Claude Souyris, CNES, France

8:50 **(4.3.2) Frequency and Bandwidth Effects in PolInSAR Forest Height Estimation**
Florian Kugler, Seung-Kuk Lee, Konstantinos Papathanassiou, Irena Hajnsek, German Aerospace Center (DLR), Oberpfaffenhofen, Germany

9:10 **(4.3.3) Early results in forest conditions from a single-pass L-Band airborne PolInSAR system**
Bryan Mercer, Parivash Lumsdon, Intermap Technologies Corp., Canada

9:30 **(4.3.4) Coherence Tomography for Boreal Forest: Comparison with HUTSCAT Scatterometer Measurements**
Jaan Praks, Martti Hallikainen, Helsinki University of Technology (TKK), Finland; Florian Kugler, Konstantinos Papathanassiou, German Aerospace Center, Germany

9:50 **(4.3.5) PolInSAR Signatures of Alpine Snow**
Keith Morrison, Univ. of Cranfield, United *Kingdom; Helmut Rott, Univ. of Innsbruck, Austria; Thomas Nagler, Environmental Earth Observation IT GmbH, Austria; Pau Prats, German Aerospace Center (DLR), Germany; Helge Rebhan, Patrick Wursteisen, ESA ESTEC Noordwijk, The Netherlands*

10:10-10:40 Coffee break

Theodor-Kober

Session 4.4: Three-dimensional SAR Techniques I (invited)

Chairmen: Fabrizio Lombardini, Univ. of Pisa, Italy; Andreas Reigber, Berlin University of Technology, Germany

8:30 **(4.4.1) A robust multibaseline sector interpolator for 3D SAR imaging**
Fabrizio Lombardini, Matteo Pardini, Lucio Verrazzani, University of Pisa, Italy

8:50 **(4.4.2) Tomographic Focusing by Combining Time-Domain Back-Projection and Multi-Looking Based Focusing Techniques**
Othmar Frey, Erich Meier, University Zurich, Switzerland

9:10 **(4.4.3) A Comparison of L-band and P-band Repeat Pass Interferometry at La Selva**
Scott Hensley, Bruce Chapman, Sassan Saatchi, Jet Propulsion Laboratory, California Institute of Technology, USA; Paul Siqueira, University of Massachusetts, USA

9:30 **(4.4.4) Interferometric Methods for 3-D Target Reconstruction with Multi-Pass Circular SAR**
Emre Ertin, Randy Moses, Lee Potter, Ohio State University, USA

9:50 **(5.4.5) Very high resolution SAR interferometry of urban areas**
Andreas Brenner, Ludwig Roessing, Wolfram Bürger, FGAN-FHR, Germany

10:10-10:40 Coffee break

Alfred-Colsman

Session 5.1: Sub-Surface Imaging and Sounding I (invited)

Chairmen: Chung-Chi Lin, European Space Agency/ESTEC, The Netherlands; Wlodek Kofman Universite de Grenoble/CNRS, France

10:40 **(5.1.1) Two years of MARSIS observations**
Wlodek Kofman, Université de Grenoble/CNRS, France; Jeffrey Plaut, Jet Propulsion Laboratory, USA; Ali Safaeinili, JPL, USA; Giovanni Picardi, Univerity of Rome La Sapienza, Italy

11:00 **(5.1.2) Surface echo reduction by clutter simulation: Application to the Marsis data**
Alain Herique, Wlodek Kofman, Université de Grenoble/CNRS, France; Jean-Francois Nouvel ONERA, France; Ali Safaeinili, JPL, USA

11:20 **(5.1.3) Dual Frequency and Multi-Receiver Radars for Sounding and Imaging Polar Ice Sheets**
Fernando Rodriguez-Morales, University of Kansas, Prasad Gogineni, Carl Leuschen, Kiran Marathe, Jilu Li, John Ledford, Center For Remote Sensing Of Ice Sheets; Ken Jezek, The Ohio State University, Christopher Allen, Victor Jara, University of Kansas; Anthony Hoch, University of Kansas, USA

11:40 **(5.1.4) Global Ice Sheet Mapping Orbiter Concept: Airborne Experiments**
Ken Jezek, The Ohio State University, Prasad Gogineni, Center For Remote Sensing Of Ice Sheets; Xiaoqing Wu, Vexcel Corporation; Ernesto Rodriguez, Tony Freeman, Jet Propulsion Laboratory, California Institute of Technology; Fernando Rodriguez-Morales, Anthony Hoch University of Kansas; John Sonntag, E.G.&G. Corporation; Richard Forster, University of Utah, USA

12:00 **(5.1.5) Implementation and test of an airborne P-band ice sounding radar**
Jorgen Dall, Steen Kristensen, Viktor Krozer, Carlos Hernández, Jens Vidkjaer, Anders Kusk, Jan Balling, Niels Skou, Sten Søbjærg, Erik Christensen, Technical University of Denmark, Denmark

12:20-13:45 Lunch break

Hugo-Eckener

Session 5.2: Next Generation SAR and Future Missions

Chairmen: Diane Evans, JPL, USA; Guido Levrini, ESA/ESTEC, The Netherlands

10:40 **(5.2.1) Lidar/InSAR Synergism for Earth Science Applications**
Tom Farr, Eric Rignot, Sassan Saatchi, Marc Simard, Robert Treuhaft, Jet Propulsion Laboratory, California Institute of Technology, USA

11:00 **(5.2.2) CoReH2O - A Ku- and X-band SAR mission for snow and ice monitoring**
Helmut Rott, Univ. of Innsbruck, Austria; Don Cline, NOAA-NOHRS Center, USA; Claude Duguay, University of Waterloo, Canada; Richard Essery, University of Edinburgh, UK; Christian Haas, Alfred Wegener Institute for Polar and Marine Research, Germany; Giovanni Macelloni, IFAC-CNR Firenze, Italy; Eirik Malnes, NORUT Tromsö, Norway; Jouni Pulliainen, Finnish Meteorological Inst., Finland; Helge Rebhan, ESA ESTEC Noordwijk, The

11:20 **(5.2.3) Deformation, Ecosystem Structure and Dynamics of Ice (DESDynI)**
Tony Freeman, Andrea Donnellan, Paul Rosen, Diane Evans, Jim Graf, Adam Loverro, Robert Treuhaft, Robert Oberto, William Johnson, Marc Simard, Tom Farr, Eric Rignot, Ronald Kwok, Xiaoqing Pi, Jet Propulsion Laboratory, California Institute of Technology, USA

11:40 **(5.2.4) A SAR Concept for the German Lunar Orbiting Mission**
Bernhard Grafmueller, EADS Astrium GmbH, Germany

12:00 **(5.2.5) ESA's SAR Technology and Future Mission Concept Developments**
Chung-Chi Lin, Florence Hélière, Paolo Bensi, Alan Thompson, Miguel Aguirre, Christopher Buck, Michael Ludwig, Martin Suess, Nicolas Le Gallou, Marinella Aloisio, Cyril Mangenot, Cornelis van't Klooster, Peter Rinous, Julian Santiago-Prowald, European Space Agency (ESTEC), The Netherlands

12:20 **(5.2.6) Ka-Band SAR for Spaceborne Applications based on Scan-on-Receive Techniques**
Michael Ludwig, Salvatore D'Addio, Paula Saameno-Perez, ESA, The Netherlands

12:20-13:45 Lunch break

Ludwig-Dürr

Session 5.3: New Techniques in POLInSAR II (invited)

Chairmen: Eric Pottier, University of Rennes, France; Shane Cloude, AEL Consultants, United Kingdom

10:40 **(5.3.1) Polarimetric Temporal Stability of urban GB-SAR measurements**
Luca Pipia, Xavier Fabregas, Carlos López-Martínez, Albert Aguasca, Jordi Mallorqui, Universitat Politecnica de Catalunya (UPC), Spain

11:00 **(5.3.2) Multi-aspect POL-InSAR 3D Urban Scene Reconstruction at L-Band**
Eric Pottier, Stefan Sauer, Laurent Ferro-Famil, University of Rennes 1, France; Andreas Reigber, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen-Wessling, Germany

11:20 **(5.3.3) Study of Sea Clutter Influence in Ship Classification Algorithms based on Polarimetric SAR Inteferometry**
Gerard Margarit, Jordi J. Mallorqui, Remote Sensing Lab. (RSLab), Universitat Politècnica de Catalunya, Barcelona, Spain

11:40 **(5.3.4) Recent Advances in the Derivation of POL-inSAR Statistics: Study and Applications**
Laurent Ferro-Famil, Maxim Neumann; University of Rennes 1, France

12:20-13:45 Lunch break

Theodor-Kober

Session 5.4: Three-dimensional SAR Techniques II (invited)

Chairmen: Fabrizio Lombardini, Univ. of Pisa, Italy; Andreas Reigber, Berlin University of Technology, Germany

10:40 **(5.4.1) 3D Urban Remote Sensing using Spectral Analysis Techniques applied to L-Band Dual-baseline POL-InSAR Images**
Stefan Sauer, Laurent Ferro-Famil, University of Rennes 1, France; Andreas Reigber, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen-Wessling, Germany; Eric Pottier, University of Rennes, France

11:00 **(5.4.2) 3D subsurface SAR for humanitarian demining**
Motoyuki Sato; Tohoku University, Japan; Kazunori Takahashi, BAM, Germany

11:20 **(5.4.3) Bistatic 3D subsurface radar imaging**
Naoki Hayashi, Motoyuki Sato, Tohoku University, Japan

11:40 **(5.4.4) A LMMSE approach to 3D SAR Focusing**
Gianfranco Fornaro, Antonio Pauciullo, IREA, CNR, Italy

12:00 **(4.4.5) Multifrequency 3-D Imaging of Tropical Forest using Polarization Coherence Tomography**
Shane Cloude, AEL Consultants, United Kingdom

12:20-13:45 Lunch break

Alfred-Colsman

Session 6.1: Sub-Surface Imaging and Sounding II (invited)

Chairmen: Chung-Chi Lin, European Space Agency/ESTEC, The Netherlands; Wlodek Kofman, Universite de Grenoble/ CNRS, France

13:45 **(6.1.1) Radar Sounder: Cross-Track Polarimetric Selectivity**
Keith Raney, Johns Hopkins University, USA

14:05 **(6.1.2) Surface Clutter Suppression Techniques for Ice Sounding Radars: Analysis of Airborne Data**
Rolf Scheiber, Pau Prats, German Aerospace Center (DLR), Germany; Florence Hélière, ESA/ESTEC, The Netherlands

14:25 **(6.1.3) Polarisation Effects in Space-borne Ice Sounding Configurations**
Konstantinos Papathanassiou, Irena Hajnsek, Rafael Schneider, German Aerospace Center (DLR) Oberpfaffenhofen, Germany

14:45 **(6.1.4) Radar sounders for Earth and the Planets**
David Hall, Martin Cohen, EADS Astrium; Nicholas Walker, eOsphere Ltd, UK; Florence Hélière, Arno Wielders, European Space Agency (ESTEC), The Netherlands

15:25-15:55 Coffee break

Hugo-Eckener
Session 6.2: Sentinel-1 I (invited)

Chairmen: Evert Attema, ESA; Malcolm Davidson, ESA/ESTEC, The Netherlands

13:45 **(6.2.1) Sentinel-1 ESA's New European Radar Observatory**
Evert Attema, Malcolm Davidson, Nicolas Floury, Guido Levrini, ESA/ESTEC, The Netherlands; Betlem Rosich, ESA/ESRIN, Italy; Bjorn Rommen, ESTEC/EOP-FTC; Paul Snoeij, ESA, The Netherlands

14:05 **(6.2.2) Sentinel-1 Radar Interferometry Applications**
Francesco De Zan, Andrea Monti Guarnieri, Fabio Rocca, Stefano Tebaldini, Politecnico di Milano, Italy

14:25 **(6.2.3) Sentinel-1 Land Applications based on Multi-temporal Data Acquisitions**
Christiana Schmullius, Friedrich-Schiller-University Jena, Germany

14:45 **(6.2.4) Sentinel-1 Ship Monitoring Applications Harm Greidanus, European Commission Joint**
Research Centre, Italy; Evert Attema, ESA, The Netherlands

15:05 **(6.2.5) Sentinel-1 Mission Analysis**
Andrea Pietropaolo, Michelangelo L'Abbate, Claudio Bruno, Thales Alenia Space S.p.A., Italy

15:25-15:55 Coffee break

Ludwig-Dürr
Session 6.3: Urban Remote Sensing (invited)

Chairmen: Fabio Dell'Acqua, University of Pavia, Italy; Uwe Stilla, Technische Universitaet Muenchen (TUM), Germany

13:45 **(6.3.1) Registration of metric resolution SAR and Optical images in urban areas**
Gabrielle Lehureau, Florence Tupin, GET/Telecom Paris; Céline Tison, CNES; Guillaume Oller, Magellium; David Petit, Magellium, France

14:05 **(6.3.2) Simulation of Radar Reflection at Man-Made Objects and its Benefits for Persistent Scatterer Interferometry**
Stefan Auer, Stefan Gernhardt, Stefan Hinz, Remote Sensing Technology, Technische Universität München; Nico Adam, Richard Bamler, German Aerospace Center (DLR), Germany

14:25 **(6.3.3) Circular SAR imagery for urban remote sensing**
Helene Oriot, Hubert Cantalloube, ONERA, France

14:45 **(6.3.4) Modelling and Analysing InSAR Phase Profiles at Building Locations in Multi-Aspect and Multi-Resolution Data**
Antje Thiele, Ulrich Thoennessen, Uwe Soergel, Karsten Schulz, FGAN-FOM, Germany

15:05 **(6.3.5) Analysis of building dimension estimation accuracy from SAR shadow information**
David Blacknel, Cranfield University; Robert Hill, Christopher Moate, QinetiQ, United Kingdom

15:25-15:55 Coffee break

Theodor-Kober
Session 6.4: Bistatic SAR I (invited)

Chairmen: Otmar Dr. Loffeld, Center for Sensorsystems (ZESS), University of Siegen; Joachim Ender, FGAN e. V., Germany

13:45 **(6.4.1) Progress of Hybrid Bistatic SAR: Synchronization Experiments and First Imaging Results**
Thomas Espeter, Ingo Walterscheid, Andreas Brenner, FGAN-FHR; Jens Klare, FGAN; Christoph Gierull, DRDC Ottawa, c/o FGAN-FHR; Joachim Ender, FGAN e. V.; Otmar Dr. Loffeld, Center for Sensorsystems (ZESS), University of Siegen, Germany

14:05 **(6.4.2) Spaceborne Bistatic Radargrammetry: a robust method for DEM generation**
Antonio Moccia, Alfredo Renga, Università di Napoli "Federico II", Italy

14:25 **(6.4.3) Simulation based Optimization of Bi- and Multistatic SAR-Missions**
Marc Kalkuhl, Wolfgang Wiechert, University of Siegen; Holger Nies, Otmar Dr. Loffeld Center for Sensorsystems (ZESS), University of Siegen, Germany

14:45 **(6.4.4) A hybrid SAR processing method for data collected using a stationary bistatic receiver**
Ishuwa Sikaneta, DRDC Ottawa, Canada

15:05 **(6.4.5) A Review of Point Target Spectra for Bistatic SAR Processing**
Yew Lam Neo, DSO National Labs, Singapore; Frank Wong, MacDonald, Dettwiler and Associates Ltd; Ian Cumming, University of British Columbia, Canada

15:25-15:55 Coffee break

Alfred-Colsman
Session 7.1: Calibration and Verification I

Chairmen: Martin Stangl, EADS Astrium; Manfred Zink, DLR, Germany

15:55 **(7.1.1) Permanent Scatterers for SAR Sensor Calibration**
Paola Rizzoli, Davide Giudici, Davide D'Aria, Aresys; Andrea Monti Guarnieri, Fabio Rocca, Politecnico di Milano; Betlem Rosich, ESA/ESRIN, Italy

16:15 **(7.1.2) Calibration of longer wavelength polarimetric SARs**
Tony Freeman, Jet Propulsion Laboratory; Thomas Ainsworth, Naval Research Laboratory, USA

16:35 **(7.1.3) Compact Polarimetry at longer wavelengths - calibration**
Tony Freeman, Jet Propulsion Laboratory, USA; Pascale Dubois-Fernandez, My-Linh Truong-Loi, ONERA, France

16:55 **(7.1.4) A Permanent Response SAR Transponder for Monitoring Ground Targets and Features**
David Hounam, German Aerospace Center (DLR), Germany; Harold Zwick, Bernhard Rabus, MDA, Canada

17:15 **(7.1.5) A New Concept for SAR Image Quality Assessment Realizing Bar Patterns in SAR Images**
Karsten Schulz, Antje Thiele, Ulrich Thoennessen, Thomas Ritter, FGAN-FOM; Andreas Brenner, FGAN-FHR, Germany

17:35-19:00 Poster Presentation

19:30-22:30 Conference Dinner and Boat Tour on the Lake Constance

Hugo-Eckener
Session 7.2: Sentinel-1 II (invited)

Chairmen: Evert Attema, ESA; Malcolm Davidson, ESA/ESTEC, The Netherlands

15:55 **(7.2.1) The C-SAR Instrument Design & Performance for the GMES Sentinel-1 Mission**
Friedhelm Rostan, Sebastian Riegger, Wolfgang Pitz, EADS Astrium Friedrichshafen, Germany; Renato Croci, Thales Alenia Space Italia; Ramon Torres, ESA - ESTEC, The Netherlands

16:15 **(7.2.2) Next Generation CORE Radar Electronics Subsystem for Sentinel-1**
Michael Hutchinson, Les Griffiths, Astrium Ltd; Eric Mak, EADS Astrium, United Kingdom

16:30 **(7.2.3) Electrical Architecture of the SENTINEL-1 SAR Antenna Subsystem**
Uwe Schönfeldt, Harald Braubach, EADS Astrium GmbH, Germany

16:55 **(7.2.4) Thermo-Mechanical Architecture of the SENTINEL-1 SAR Antenna**
Mathias Alberti, EADS Astrium GmbH, Germany

17:35-19:00 Poster Presentation

19:30-22:30 Conference Dinner and Boat Tour on the Lake Constance

Ludwig-Dürr

Session 7.3: Advanced SAR Instruments, Modes and Processing

Chairman: Michael Völker, EADS Astrium, Germany

15:55 **(7.3.1) Onera Drive Project**
Jean-Francois Nouvel, Olivier Ruault Du Plessis, ONERA, France; Jan Svedin, Andreas Gustafsson, FOI, Sweden

16:15 **(7.3.2) TerraSAR-X TOPSAR and ScanSAR comparison**
Adriano Meta, Pau Prats, Ulrich Steinbrecher, Josef Mittermayer, Rolf Scheiber, German Aerospace Center (DLR), Germany

16:35 **(7.3.3) Interference covariance matrix estimation for a Multi-Channel Synthetic Aperture Radar**
Matteo Sedehi, Marta Bucciarelli, Diego Cristallini, Simona Scolamiero, Pierfrancesco Lombardo, University of Rome La Sapienza, Italy

16:55 **(7.3.4) A new approach for reconfigurable SAR system using space-time coding**
Junghyo Kim, Thomas Fuegen, Werner Wiesbeck, IHE, University of Karlsruhe, Germany

17:15 (7.3.5) Dual-polarized Patch Antenna Array for High Resolution Wide Swath SAR Applications
Malgorzata Switka, Gdansk University of Technology, Poland; Philip Shutie, EADS Astrium, Germany

17:35-19:00 Poster Presentation

19:30-22:30 Conference Dinner and Boat Tour on the Lake Constance

Theodor-Kober

Session 7.4: Bistatic SAR II (invited)

Chairmen: Otmar Dr. Loffeld, Center for Sensorsystems (ZESS), University of Siegen; Joachim Ender, FGAN e. V., Germany

15:55 **(7.4.1) A Special Point Target Reference Spectrum for Spaceborne/airborne Configuration bistatic SAR processing**
Robert Wang, Otmar Loffeld, Holger Nies, Amaya Medrano Ortiz, Stefan Knedlik, Center for Sensorsystems (ZESS), University of Siegen, Germany

16:15 **(7.4.2) Space-Surface Bistatic SAR topology and its impact on image formation**
Michail Antoniou, Rajesh Saini, Rui Zuo, Mikhail Cherniakov, University of Birmingham, United Kingdom

16:35 **(7.4.3) Bistatic Interferometry using Fixed Receiver Configurations**
Sergi Duque, Paco Lopez-Dekker, Juan Carlos Merlano, Jordi Mallorqui, Antoni Broquetas, Universitat Politecnica de Catalunya (UPC), Spain

16:55 **(7.4.4) Analysis and Extension of Loffeld's Bistatic Formula for the Spaceborne/Airborne Configuration**
Robert Wang, Otmar Loffeld, Holger Nies, Qurat Ul-Ann, Amaya Medrano Ortiz, Stefan Knedlik, Center for Sensorsystems (ZESS), University of Siegen, Germany

17:15 **(7.4.5) First polarimetric validation and results on the bistatic scattering by a set of cylinders using a forest scattering model**
Elise Colin, ONERA; Laetitia Thirion Lefevre, SONDRA, France

17:35-19:00 Poster Presentation

19:30-22:30 Conference Dinner and Boat Tour on the Lake Constance

Wednesday, June 4, 2008

Lobby
Poster Session

P01: Spaceborne, Airborne and UAV SAR

P01.01 **Remote Sensing at Millimetre Waves with the MEMPHIS Synthetic Aperture Radar**
Helmut Essen, Manfred Haegelen, Hartmut Schimpf, Thorsten Brehm, FGAN, Germany

P01.02 **Study on airship imaging radar based on aperture synthesis antenna**
Yingni Hou, Daojing Li, Jianfeng Yin, Chinese Academy of Science; Wen Hong, National Key Laboratory of Microwave Imaging Technology, P. R. China

P01.03 **Data Collection Campaign with MARSE Radar for VHR SAR imagery**
Luc Bosser, Didier Le Foll, Thales Systemes Aeroportes, France

P02: SAR Technology

P02.01 **Step-Tune Method for Digital Automatic Gain Control System of SAR**
Xi Chen, Yun-Kai Deng, Ping Zhang, Haiming Qi, Chinese Academy of Sciences, P. R. China

P02.02 **VHF dual-polarized dipole antenna with capacitive loads**
Igor Porokhov, Leon Neronskiy, Joint-stock Company Radio Engineering Corporation VEGA, Russia

P02.03 **One-bit quantization for Synthetic Aperture Radar with**
Alicja Ossowska, German Aerospace Center (DLR), Germany

P02.04 **Ground Based Noise Waveform SAR with Static Antenna Array and Single Channel Receiver**
Konstantin Lukin, Anatoly Mogila, National Academy of Sciences of Ukraine, Ukraine

P02.05 **Reconfigurable Ground Based Noise-Waveform-SAR for Short Range Applications**
Konstantin Lukin, Anatoly Mogila, National Academy of Sciences of Ukraine, Ukraine

P03: Next Generation SAR and Advanced Modes

P03.01 **The Polar Format Imaging Algorithm for Forward-looking Bistatic SAR**
Sun Jin-ping, Lv Yan, Shiyi Mao, University of Aeronautics and Astronautics, BeiJing; Wen Hong, National Key Laboratory of Microwave Imaging Technology, P. R. China

P03.02 **Exploitation of Angular Diversity for Bistatic Image Formation using Opportunistic Transmitters**
Chin Yuan Chong, Laetitia Thirion, DSO National Laboratories/Sondra Laboratory, France

P03.03 **SAR Imaging Solutions Based on Azimuth Phase Coding**
Diego Cristallini, Matteo Sedehi, Pierfrancesco Lombardo, University of Rome, "La Sapienza", Italy

P03.04 **Non-parametrical focusing of SAR images in transionospheric VHF-band SAR**
Oleg Goriachkin, VSATI; Evgeniy Ivaschenko, State Research and Production Space Rocket Centre "TsSKB-Progress", Russia

P03.05 **The Modified BFPQ algorithm**
Ury Naftaly, Elta, Israel

P04: STAP, MTI & Change Detection

P04.01 **Results from an Airborne Tri-channel SAR-GMTI Experiment**
Xiaolei Lv, Jiang Qian, Mengdao Xing, Shouhong Zhang, Key Laboratory for Radar Signal Processing, Xidian University, P. R. China

P04.02 **Improved multichannel GMTI via moving target de-chirping and range migration correction**
Christoph Gierull, Joachim Ender, FGAN, Germany

P04.03 **Detection of the Along-Track Speed of Moving Targets in SAR Imagery based on the Radon Transform**
José María Muñoz-Ferreras, Félix Pérez-Martínez, Universidad Politécnica de Madrid, Spain; Mihai Datcu, German Aerospace Center, Germany

P04.04 **Performance Analysis of STAP for Spaceborne Sparse Array in the Presence of Amplitude and Phase Errors**
Xueyan Kang, Yunhua Zhang, Risheng Yun, Center for Space Science and Applied Research, Chinese Academy of Sciences; Bitao Jiang, Beijing Institute of Remote Sensing Information, P. R. China

P04.05 **Change detection based GMTI on single channel SAR images**
Debora Pastina, University of Rome "La Sapienza"; Giulia Battistello, D'Appolonia; Angelo Aprile, Galileo Avionica Spa, Italy

P04.06 **Innovative SAR/MTI Concepts for Digital Radar**
Jacco de Wit, TNO Defence, Security and Safety, The Netherlands

P04.07 **A Novel Methodology for Full Velocity Vector Estimation of Ships Using SAR Data**
Andrea Radius, University "Tor Vergata" Rome, Italy; Paulo Marques, Instituto de Telecomunicações - Insituto Superior de Engenharia de Lisboa, Portugal

P05: SAR Calibration and Verification

P05.01 **Investigation of the Doppler Effect Influence on the Interferometric SAR Directional Pattern**
Zolotarev Ilya, Omsk State University Omgu; Iakov Miller, Academy MBF, Russia

P05.02 **Improvement of Radiometric Calibration Accuracy Using Super Resolution Methods**
Mikhail Dostovalov, Scientific Research Institute of Precise Instruments; Leon Neronskiy, Joint-stock Company Radio Engineering Corporation "VEGA", Russia

P05.03 **Ionospheric Correction by Means of Coherent Scatterers**
Rafael Schneider, Konstantinos Papathanassiou, German Aerospace Center (DLR), Germany

P05.04 **Geometric, Radiometric, Polarimetric and Along-Track Interferometric Calibration of the new F-SAR system of DLR in X-Band**
Jens Fischer, Stefan Baumgartner, Ralf Horn, Anton Nottensteiner, Rolf Scheiber, Andreas Reigber, German Aerospace Center (DLR), Germany

P06: SAR Simulation

P06.01 **A New Statistical Model of High Resolution SAR Clutter in Raw Data Domain: Theoretical Results and Experimental Validation**
Yanfei Zhang, Radar teaching group; Jian Guan, Naval Aeronautical Engineering Institute, P. R. China

P06.02 **Inserting Moving Targets to Polarimetric SAR Image by Self Deception Jamming**
Necmi Tezel, Selçuk Paker, Istanbul Technical University, Turkey

P06.03 **High Frequency Multi Reflection RCS and ISAR Simulation**
Wen Xiaoyang, Chao Wang, Zhang Hong, Wu Yanzhao, Zhang Bo, Chinese Academy of Science, P. R. China

P06.04 **Analysis and Computer Simulation of Circlular Synthetic Aperture Radar with single frequency**
Xiangkun Zhang, Yunhua Zhang, Jingshan Jiang, Center for Space Science and Applied Research, Chinese Academy of Sciences, P. R. China

P06.05 **An Educational Multi-Channel Testbed for Synthetic Aperture Techniques**
Paulo Marques, Instituto de Telecomunicações - Insituto Superior de Engenharia de Lisboa, Portugal

P06.06 **Simulation of airborne SAR raw data using real-time domain approach and predictive coding algorithms**
Pablo Perna, Francisco Grings, Haydee Karszenbaum, Julio Cesar Jacobo-Berlles, University of Buenos Aires, Argentina

P06.07 **SAR Raw Data Simulation of Targets Using Three Dimensional Models**
Ozan Dogan, Mesut Kartal, Istanbul Technical University, Turkey

P07: SAR and Inverse SAR Processing

P07.01 **A TOPSAR Processing Algorithm Based on Extended Chirp Scaling: Evaluation with TerraSAR-X Data**
Pau Prats, Adriano Meta, Rolf Scheiber, Josef Mittermayer, Alberto Moreira, German Aerospace Center (DLR), Germany; Jesus Sanz-Marcos, Cota Cero Arquitectura y Algoritmica S. L., Spain

P07.02 **High Resolution Tower-Turntable ISAR with the Millimetre Wave Radar COBRA (35/94/220 GHz)**
Helmut Essen, Alfred Wahlen, Jörn Wilcke, Gregor Biegel, Winfried Johannes, Rainer Sommer, FGAN, Germany

P07.03 **Reconstruction of 3-D Target Geometry Using Radar Movie**
Kei Suwa, Kazuhiko Yamamoto, Masafumi Iwamoto, Mitsubishi Electric Corporation, Japan; Tetsuo Kirimoto, The University of Electro-Communications, Japan

P07.04 **High Speed Target ISAR Imaging Based on Synthetic Bandwidth**
Zhaozhao Gao, Huanying Zhang, Mengdao Xing, Zhang Shouhong, Xidian University, P. R. China

P07.05 **Bistatic ISAR Image Formation in Presence of Bistatic Angle Changes and Phase Synchronisation Errors**
Marco Martorella, University of Pisa, Italy

P07.06 **Detection of Curving Ground Vehicles in Radar Data for ISAR Imaging**
Patrick Berens, Ulrich Gebhardt, Jürgen Holzner, FGAN, Germany

P07.07 **Non-Linear SAR Data Processing By Time-Domain Back-Projection**
Othmar Frey, Christophe Magnard, Erich Meier, University of Zurich; Maurice Rüegg, UBS AG, Switzerland

P07.08 **Chirp-Z Transform Based Interpolator Adaptation for Range Migration Correction**
Dominique Derauw, Christian Barbier, Centre Spatial de Liège, Belgium

P07.09 **Applications of Time-Domain Back-Projection SAR Processing in the Airborne Case**
Marcelo Albuquerque, Instituto Tecnológico de Aeronáutica, Brazil; Pau Prats, Rolf Scheiber, German Aerospace Center (DLR), Germany

P07.10 **Advanced SAR Mode Image Formation Using Pulse Z-Transform**
Oyvind Overrein, Applied Radar Physics AS, Hazden John Callow, Forsvarets Forskningsinstitutt, Norway

P07.11 **Near Real Time SAR Processors for ISRO's multimode RISAT-I and DMSAR**
Nilesh Desai, Space Applications Centre (ISRO); Saravana Kumar, Indian Space Research Organisation, India

P07.12 **Squint Angle Limitations for Space-Borne Spot SAR Imaging**
Ury Naftaly, Elta, Israel

P07.13 **Simple Imaging Algorithm for Stepped-Chirp SAR**
Yunhua Zhang, Wenshuai Zhai, Xiangkun Zhang, Chinese Academy of Sciences, P. R. China

P07.14 **Bistatic ISAR Target Simulation**
Nickolai Kolev, Naval Academy, Bulgaria

P07.15 **ISAR Data dynamics: target shapes features extraction for the design of ISAR retrieval system**
M. N. Saidi, Abdelmalek Toumi, Brigitte Hoeltzener, Ali Khenchaf, Laboratoire E3I2-EA3876, Brest, France; Driss Aboutajdine, University Mohamed, Morocco

P08: Bistatic, Multistatic and Multi-Satellite SAR

P08.01 **Analysis and Improvement of a Fast Backprojection Algorithm for Stripmap Bistatic SAR Imaging**
Jintao Xiong, Jianyu Yang, Yong Fan, University of Electronic Science and Technology of China, P. R. China

P08.02 **Research on Improved RD Algorithm for Airborne Bistatic SAR and Experimental Data Processing**
Jintao Xiong, Jianyu Yang, Yong Fan, University of Electronic Science and Technology of China, P. R. China

P08.03 **Research on the Extremum Points of Range-surface and Doppler-surface for Bistatic SAR**
Jingen Wang, Jiang Kai, East China Research Institute of Electronic Engineering; Yanfei Wang, Artillery Academy of P.L.A, P.R. China

P08.04 **Motion Compensation in Bistatic SAR for the Hybrid Experiment**
Amaya Medrano Ortiz, Robert Wang, University Siegen; Otmar Dr. Loffeld, Holger Nies, Center for Sensorsystems (ZESS), Germany

P08.05 **A Simplified Approach to Fast Calculating the Resolution in Arbitrary Direction for Bistatic SAR**
Jingen Wang, Jiang Kai, East China Research Institute of Electronic Engineering; Yanfei Wang, Artillery Academy of P.L.A, P. R. China

P08.06 **Optimal selection of phase-keyed signals for bistatic SAR**
Natalie Sologub, Kharkov Aviation Institute, Ukraine

P08.07 **Multiposition SAR. Processing algorithm and imaging stability versus monostatic SAR**
Alexander Ksendzuk, National Aerospace University, Ukraine; Vladimir Ksenzuk, Navis, Russia

P08.08 **Optimisation of multiposition pseudo-passive SAR**
Alexander Ksendzuk, Valery Volosyuk, National Aerospace University, Ukraine

P09: Interferometry, Repeat Pass, SAR Tomography, 3D SAR and Applications

P09.01 **A Region Based Approach for SAR Image Co-Registration**
Jinfeng Wang, Zhouan Han, Yiming Pi, Jintao Xiong, University of Electroni Science and Technology of China, P. R. China

P09.02 **A new dual baseline phase unwrapping algorithm for the TanDEM-X Mission**
Marie Lachaise, Thomas Fritz, Michael Eineder, German Aerospace Center (DLR), Germany

P09.03 **Imaging of targets beneath foliage with SAR tomography**
Matteo Nannini, Rolf Scheiber, Ralf Horn, German Aerospace Center (DLR), Germany

P09.04 **SAR Tomography over Decorrelating Targets for Forestry Applications**
Stefano Tebaldini, Fabio Rocca, Politecnico di Milano, Italy

P09.05 **Two Dimensional Kalman Filter Approach for Phase Unwrapping of TerraSAR-X Data**
Holger Nies, Otmar Dr. Loffeld, Robert Wang, University Siegen, Germany

P09.06 **The Modified 3-D Range Migration Algorithm for Synthetic Aperture Radar Tomography**
WeiXian Tan, Wen Hong, YanPing Wang, YiRong Wu, Chibiao Ding, National Key Laboratory of Microwave Imaging Technology, P. R. China

P09.07 **Glint Effects Simulation for an Extended Naval Target Using an Interferometric Inverse Synthetic Aperture Radar System Model**
Theodoros Kostis, University of the Aegean, Greece

P09.08 **Tomographic SAR and Circular SAR Experiments in Anechoic Chamber**
Wen Hong, YanPing Wang, WeiXian Tan, National Key Laboratory of Microwave Imaging Technology; NanJing Li, ChuFeng Hu, LinXi Zhang, Northwest Polytechnical University, P. R. China

P09.09 **Surface displacements of the St. Augustine Volcano, Alaska, measured from an DInSAR and GPS data**
Chang-Wook Lee, Hyung-Sup Jung, Joong-Sun Won, Yonsei University, Korea; Zhong Lu, Oh-Ig Kwoun, USGS/EROS data center, USA; Seung-Kuk Lee, German Aerospace Center (DLR), Germany

P09.10 **Ionosphere Perturbation Effects in Repeated Orbits SAR Interferometry**
Alexander Zakharov, Institute of radioengineering and electronics, Russia

P09.11 **On the Exploitation of the Extended Minimum Cost Flow (EMCF) Phase Unwrapping Algorithm for the Generation of Deformation Time-Series**
Antonio Pepe, University of Napoli; Francesco Casu, Riccardo Lanari, IREA; Michele Manunta, Giuseppe Mozzarella, University of Cagliari, Italy

P09.12 **Evaluation of Digital Elevation Models from Stereo Radargrammetry data**
Parivash Lumsdon, Bryan Mercer, Intermap technologies Corp., Canada

P09.13 **Phase Unwrapping for Multiple Interferograms: An Airborne Experiment for TanDEM-X**
Christian Andres, Rolf Scheiber, Markus Bachmann, Gerhard Krieger, Jaime Hueso Gonzalez, German Aerospace Center (DLR), Germany

P09.14 **Multi-pass airborne interferometry campaign at X-band**
Sebastien Angelliaume, Helene Oriot, Xavier Dupuis, Olivier Ruault Du Plessis, Patrick Fromage, Daniel Heuzé, Colette Coulombeix, ONERA, France

P09.15 **Coherent vs. Persistent Scatterers: A Case Study**
Luca Marotti, Alessandro Parizzi, Nico Adam, Konstantinos Papathanassiou, German Aerospace Center (DLR), Germany

P09.16 **TanDEM-X Performance Analysis**
Sigurd Huber, Marwan Younis, Gerhard Krieger, German Aerospace Center (DLR), Germany

P10: Polarimetry, Polarimetric Interferometry & Applications

P10.01 **Foliage penetration effect on polarimetric SAR interefometry observation of forest 297**
Armando Marino, Karin Viergever, Iain Woodhouse, University of Edinburgh; Nicholas Walker, eOsphere Ltd, United Kingdom; Ralf Horn, German Aerospace Center (DLR), Germany

P10.02 **Water Change Detection in Natural Dam caused by Earthquake using Pi-SAR fully Polarimetric Data**
Yoshio Yamaguchi, Hiroyoshi Yamada, Ryoichi Sato, Niigata University, Japan

P10.03 **Effect of combined direct ground and double-bounce mechanisms on the homogeneous volume over ground model**
Josep-David Ballester-Berman, Juan Lopez-Sanchez, University of Alicante, Spain

P10.04 **Polarimetric Coherence Signatures and Coherence Regions in Complex Unit Circle**
Ludmila Zakharova, Institute of Radioengineerng and Electronics RAS, Russia

P10.05 **Scattering Analysis of Urban Targets with Simulated SAR Imagery**
Gerard Margarit-Martin, GMV Aerospace and Defense; Jordi Mallorqui, Carlos López-Martínez, Albert Aguasca, Xavier Fabregas, Luca Pipia, Technical University of Catalunya, Spain

P10.06 **A Unified Interpretation for Polarization Signature Method and Circular Polarization Method Based on Stokes Matrix Analysing**
Yang Li, Fang Cao, Institute of Electronics, Chinese Academy of Science; Wen Hong, YanPing Wang, YiRong Wu, National Key Laboratory of Microwave Imaging Technology, P. R. China

P10.07 **Sub-Aperture Analysis of the Coherent Scatterers using Polarimetric SAR data**
Xi Chen, Chao Wang, Chinese Academy of Sciences; Hong Zhang, Zhang Bo, China Remote Sensing Satellite Ground Station, P. R. China

P10.08 **Polarimetric Analysis of Dual Polarimetric SAR Imagery**
Thomas Ainsworth, John Kelly, Jong-Sen Lee, Naval Research Laboratory, USA

P10.09 **A New Soil Moisture Estimation Method Study Using PolinSAR**
Xinwu Li, Zhen Li, Quan Chen, Microwave Remote Sensing Division; Huadong Guo, Chinese Academy of Sciences; YanPing Wang, National Key Laboratory of Microwave Imaging Technology, P. R. China

P10.10 **A Monitoring Technique for Seasonal Water Area Change of Wetland Based on POLSAR Image Analysis**
Ryoichi Sato, Yoshio Yamaguchi, Hiroyoshi Yamada, Niigata University, Japan

P10.11 **Statistical Assessment of the PolInSAR Coherence Set for Geophysical Media**
Maxim Neumann, Laurent Ferro-Famil, University of Rennes 1, France; Marc Jäger, Andreas Reigber, Berlin University of Technology, Germany

P10.12 **The Potential of airborne Pol-InSAR measurements to derive vertical structure parameters of Alpine Glaciers**
Thomas Busche, Irena Hajnsek, Jayanti Sharma, Konstantinos Papathanassiou, German Aerospace Center (DLR), Germany

P11: Image Enhancement and Post Processing

P11.01 **An Orthogonal Projection Approach for Suppressing Moving Targets in Multi-Channel SAR Images**
Florian Schulz, Christoph Gierull, Andreas Brenner, FGAN, Germany

P11.02 **Improved SAR Motion Compensation without Interpolation**
Evan Zaugg, David Long, Brigham Young University; Michael Wilson, U. S. Naval Research Laboratory, USA

P11.03 **PGAAlgorithm Application for Local Autofocusing of Hi-Res Spaceborne SAR Images**
Leon Neronskiy, Igor Osipov, Vladimir Verba, Dmitry Pushkov, Joint-stock Company Radio Engineering Corporation "VEGA", Russia

P11.04 **Method of Selective One-dimensional Azimuth Ambiguity Reduction for High Resolution SAR**
Alexander Kovalenko, Scientific and Research Institute of Precise Instruments, Russia

P11.05 **CFAR Detection of Extended Targets in SAR Images based on goodness-of-fit test**
Xiaobo Deng, Zhouan Han, Yiming Pi, Xiaobo Yang, University of Electronic Science and Technology of China; Zhenglin Cao, Radar and Avionics Institute of China Aviation Industry Corporation I, P. R. China

P11.06 **Squint SAR Data Processing With Extended Wavenumber Domain Algorithm Combines Motion Compensation**
Yun-Kai Deng, Ge-Wei Tan, Chinese Academy of Sciences, P.R. China

P11.07 **A study of extrapolation technique in radar imaging**
Ping Zhang, Graduate University of Chinese Academy of Sciences; Ruliang Yang, Chinese Academy of Sciences, P. R. China

P11.08 **Adaptive Dynamic Range Reduction for SAR Images**
Martin Lambers, Andreas Kolb, University of Siegen, Germany

P11.09 **Improved Airborne SAR Data Processing by Blockwise Focusing, Mosaicking and Geocoding**
Christophe Magnard, Othmar Frey, Erich Meier, University of Zurich; Maurice Rüegg, UBS AG, Switzerland

P11.10 **Influence of an error and correlation of a phase evaluation of reference signal on a SAR image quality in a method of an autofocusing using point radiocontrast targets**
Alexander Broukhansky, Moscow Aviation Institute, Russia

P11.11 **SAR Image Quality Assessment in the Real Clutter Environment**
Kwag Young, Chul Ho Jung, Jae Hoon Jung, Tae Oh, Korea Aerospace University, Korea

P11.12 **Radar Rectification of GIS Data for SAR Image Analysis in Mountainous Areas**
Ivan Petillot, Emmanuel Trouve, Philippe Bolon, Université de Savoie, France; Michel Gay, Jean-Michel Vanpé, INPG, France

P11.13 **Imaging base on second-order signal statistic in SAR for the stochastic surface models**
Alexander Ksendzuk, National Aerospace University; Natalie Sologub, Kharkov Aviation Institute, Ukraine

P12: Image Classification and Segmentation

P12.01 **Non-negative Matrix Factorization with Sparseness Constraints for Sea Ice SAR Feature Extraction**
Juha Karvonen, Finnish Institute of Marine Research, Finland

P12.02 **The Use of GPR at the Interpretation of Radar Images of Forest at MeterWavelength Range**
Boris Kutuza, Russian Acad. of Sciences; Anatoliy Kalinkevich, Marina Krylova, Olga Shishkova, Vasily Marchuk, Institute of Radio Engineering and Electronics; Vladimir Verba, Viktor Plushchev, Valeriy Manakov, VEGA Corporation, Russia

P12.03 **Hierarchical Gauss Markov Segmentation of SAR Images Using Fourier Domain**
Sedef Kent, Ibrahim Papila, Mesut Kartal, Istanbul Technical University, Turkey

P12.04 **SAR image segmentation using a fast level set technique**
Marta Mejail, Juliana Gambini, Norberto Goussies, Maria Buemi, Julio Cesar Jacobo-Berlles, University of Buenos Aires, Argentina

P12.05 **Land-cover classification using fused PolSAR and PolInSAR**
Michal Shimoni, Dirk Borghys, Roel Heremans, Christiaan Perneel, Marc Acheroy, Royal Military Academy, Belgium

P12.06 **Multilook Color Mapping Processing**
Andrzej Gados, Adam Gorzelanczyk, Maj Mordzonek, Piotr Samczynski, Maciej Smolarczyk Telecommunications Research Institute; Krzysztof Kulpa, Jacek Misiurewicz, Warsaw University of Technology, Poland

P12.07 **Clustering by deterministic annealing and Wishart based distance measures for fully-polarimetric SAR-data**
Ronny Haensch, Marc Jäger, Olaf Hellwich, Berlin University of Technology, Germany

P12.08 **Improved Unsupervised Classification Based on Freeman-Durden Polarimetric Decomposition**
Wen Yang, Tong yuan Zhou, Hong Sun, Wuhan University, P.R. China

P12.09 **An Unsupervised Segmentation Using the Data Log-Likelihood for Fully Polarimetric SAR Data Analysis**
Fang Cao, Chinese Academy of Sciences; Wen Hong, YiRong Wu, YanPing Wang, National Key Laboratory of Microwave Imaging Technology, P. R. China

P12.10 **Automated detection of precipitation induced artefacts in X-band SAR images**
Andreas Danklmayer, Björn Döring, German Aerospace Center (DLR), Germany; Madhu Chandra, Technical University of Chemnitz, Germany

P12.11 **SAR Image Segmentation Via Lattice Filters Based Subband Decomposition**
Isin Erer, Mesut Kartal, Sedef Kent, Istanbul Technical University, Turkey

P12.12 **Building Extraction from Polarimetric SAR Data using Mean Shift and Conditional Random Fields**
Wenju He, Marc Jäger, Andreas Reigber, Olaf Hellwich, Berlin University of Technology, Germany

P13: Feature Extraction

P13.01 **Adaptive Detection of Range-Distributed Targets Based on SAR Raw data**
Yanfei Zhang, Radar teaching group; Jian Guan, Naval Aeronautical Engineering Institute, P. R. China

P13.02 **SAR Automatic Target Recognition based on Decision Fusion**
Ruohong Huan, Ruliang Yang, Chinese Academy of Sciences, P. R. China

P13.03 **Statistical Analysis of High Resolution spatially correlated Land Clutter at Millimeterwave Frequencies**
Anika Kurz, Hartmut Schimpf, FGAN, Germany

P13.04 **A Variational Level Set SAR Image Segmentation Approach**
Zongjie Cao, Yiming Pi, Xiaobo Yang, Jintao Xiong, University of Electronic Science and Technology of China, P. R. China

P13.05 **Target Detection Improvement by Using a Class Decision Algorithm for Synthetic Aperture Radar**
Mesut Kartal, Sedef Kent, Istanbul Technical University; Serdar Kargin, Air Force Academy, Turkey

P13.06 **Application of SAR to Monitoring Activities and Environmental Parameters during Oil Platform Installation**
Victoria Zatyagalova, R&D Center ScanEx; Andrei Ivanov, Russian Academy of Sciences, Russia 17

P13.08 **Detection of Step Changes in a Long Sequence of SAR Images**
Diego Cristallini, Pierfrancesco Lombardo, University of Rome "La Sapienza", Italy

P13.09 **Independency Preserving Dependent Maximum Likelihood Texture Tracking Model**
Esra Erten, Andreas Reigber, Olaf Hellwich, Berlin University of Technology; Pau Prats, German Aerospace Center (DLR), Germany

P13.10 **Cross-calibration of Ground-Based SAR by using ALOS/PALSAR and a retrieval of soil moisture**
Manabu Watanabe, Motoyuki Sato, Masayoshi Matsumoto, Tohoku University, Japan

P13.11 **Some effects of target vibration on SAR images**
Brian Barber, Defence Science and Technology Lab, United Kingdom

P13.12 **TerraSAR-X Data Evidence Maximization-based Feature Extraction and Despeckling**
Matteo Soccorsi, Mihai Datcu, German Aerospace Center (DLR), Germany

P13.13 **Super-resolution satellite SAR for urban features monitoring**
Morten Ramberg, University of Oslo; Dan Johan Weydahl, Norwegian Defence Research Establishment (FFI), Norway

P13.14 **Rapid assessment of exposed populations in the aftermath of natural hazard events: Lessons from the Sumatra 2004 Tsunami regarding the use of SAR data**
Dan Blumberg, Ben-Gurion University of the Negev, Israel; Deborah Balk, City University of New York; Yuri Gorokhovich, Lehman College, CUNY; Christopher Small, Dalia Bach, Columbia University, USA

Thursday, June 5, 2008

Alfred-Colsman
Session 8.1: Calibration and Verification II

Chairman: Tony Freeman, Jet Propulsion Laboratory, USA

8:30 **(8.1.1) X-band RAMSES PolInSar data calibration and validation**
Sebastien Angelliaume, Pascale Dubois-Fernandez, ONERA, France

8:50 **(8.1.2) Final Results of the TerraSAR-X In-Orbit Antenna Model Verification**
Markus Bachmann, Marco Schwerdt, Benjamin Bräutigam, Björn Döring, German Aerospace Center, Germany

9:10 **(8.1.3) Radar Instrument Calibration of TerraSAR-X**
Benjamin Bräutigam, Jaime Hueso Gonzalez, Marco Schwerdt, Markus Bachmann, German Aerospace Center (DLR), Germany

10:10-10:40 Coffee break

Hugo-Eckener
Session 8.2: TanDEM-X I

Chairman: David Miller, EADS Astrium, Germany

8:30 **(8.2.1) The TanDEM-X Mission**
Michael Bartusch, Hermann Berg, Oliver Siebertz, German Aerospace Center (DLR), Germany

8:50 **(8.2.2) The TanDEM-X Mission Concept**
Manfred Zin, Gerhard Krieger, Hauke Fiedler, Alberto Moreira, German Aerospace Center (DLR) Oberpfaffenhofen, Germany

9:10 **(8.2.3) The TanDEM-X Satellite**
David Miller, EADS Astrium, Germany

9:30 **(8.2.4) Interferometric SAR Processing: From TerraSAR-X to TanDEM-X**
Thomas Fritz, Helko Breit, Michael Eineder, Nico Adam, Marie Lachaise, German Aerospace Center (DLR), Germany

9:50 **(8.2.5) TanDEM-X: Science Exploration during the Phase C/D**
Irena Hajnsek, Thomas Busche, Alberto Moreira, German Aerospace Center (DLR) e.V., Germany

10:10 **(8.2.6) The TanDEM-X Data Acquisition Timeline and Mission Plan**
Hauke Fiedler, Gerhard Krieger, Manfred Zink, Michael Geyer, Juergen Jaeger, German Aerospace Center (DLR), Germany

10:10-10:40 Coffee break

Ludwig-Dürr
Session 8.3: MTI and Change Detection I (invited)

Chairmen: Joachim Ender, FGAN e. V., Germany; Pascale Dubois-Fernandez, ONERA, France

8:30 **(8.3.1) First experimental demonstration of GMTI improvement through antenna switching**
Delphine Cerutti-Maori, FGAN-FHR, Christoph Gierull, DRDC Ottawa, c/o FGAN-FHR, Joachim Ender, FGAN e. V., Germany

8:50 **(8.3.2) A coherent change detection analysis using multi-pass airborne interferometric data at X- band**
Sebastien Angelliaume, Helene Oriot, Xavier Dupuis, ONERA, France

9:10 **(8.3.3) Traffic Measurement with TerraSAR-X: Processing System Overview and First Results**
Steffen Suchandt, Hartmut Runge, Helko Breit, Alexander Kotenkov, German Aerospace Center (DLR); Diana Weihing, Stefan Hinz, Remote Sensing Technology, Technische Universitaet Muenchen, Germany

9:30 **(8.3.4) Estimation of the lateral length of moving ground targets by airborne radar**
Richard Klemm, FGAN, Germany

9:50 **(8.3.5) ATI Performance using Simulated X-band Sea-clutter**
Luke Rosenberg, Nick Stacy, DSTO, Australia

10:10-10:40 Coffee break

Theodor-Kober

Session 8.4: Innovative Digital Beamforming SAR Systems (invited)

Chairmen: Marwan Younis, German Aerospace Center; Werner Wiesbeck, University of Karlsruhe, Germany

8:30 **(8.4.1) Along-track array processing for MIMO-SAR/MTI**
Joachim Ender, FGAN e. V., Germany

8:50 **(8.4.2) Frontend development for the High Resolution Wide Swath SAR**
Christian Fischer, Christoph Heer, Christoph Schaefer, EADS Astrium, Germany

9:10 **(8.4.3) Experimental Performance Analysis of Digital Beam Forming on Synthetic Aperture Radar**
Junghyo Kim, IHE, University of Karlsruhe; Marwan Younis, German Aerospace Center; Denis Becker, Werner Wiesbeck, University of Karlsruhe, Germany

9:30 **(8.4.4) Multi-Channel ScanSAR for High-Resolution Ultra-Wide-Swath Imaging**
Nicolas Gebert, Gerhard Krieger, Alberto Moreira, German Aerospace Center (DLR), Germany

9:50 **(8.4.5) A Novel Ka-band Digitally Beamformed Interferometric Synthetic Aperture Radar for Glacier and Ice-sheet Topographic Mapping: Concept and Technology Development**
Delwyn Moller, Brandon Heavey, Eric Rignot, Gregory Sadowy, Marc Simard, Mark Zawadzki, Jet Propulsion Laboratory, USA

10:10-10:40 Coffee break

Alfred-Colsman

Session 9.1: Feature Extraction, Image Classification and Segmentation I

Chairman: Lars Ulander, FOI, Sweden

10:40 **(9.1.1) Evaluation of high resolution space borne SAR for man-made target characterization**
Bert van den Broek, Rob Dekker, TNO Defence, Security and Safety, The Netherlands

11:00 **(9.1.2) Time-Frequency Estimates of River Speeds**
Paul Kersten, Thomas Ainsworth, Robert Jansen, Jakov Toporkov, Mark Sletten, Naval Research Lab; Stephen Frasier, Dragana Perkovic, Unversity of Massachusetts, USA

11:20 **(9.1.3) TerraSAR-X Image Analysis using PCA, ICA and SVM**
Houda Chaabouni-Chouayakh, Mihai Datcu, German Aerospace Center (DLR), Germany; David Mata-Moya, University of Alcalá, Spain

11:40 **(9.1.4) A Study of Land Cover Classification Using ALOS/PALSAR Polarimetric Data**
Masato Ohki, Masanobu Shimada, Japan Aerospace Exploration Agency, Japan

12:00 **(9.1.5) Detection of Clear-Cuts Using ALOS PALSAR Satellite Images**
Johan Fransson, Mattias Magnusson, Håkan Olsson, Swedish University of Agricultural Sciences; Leif Eriksson, Gustaf Sandberg, Klas Folkesson, Chalmers University of Technology, Sweden; Maurizio Santoro, GAMMA Remote Sensing Research and Consulting AG, Switzerland; Lars Ulander, FOI, Sweden

12:20-13:45 Lunch break

Hugo-Eckener
Session 9.2: TanDEM-X II

Chairman: David Miller, EADS Astrium, Germany

10:40 **(9.2.1) TanDEM-X DEM Calibration Concept and Height References**
Jaime Hueso Gonzalez, Markus Bachmann, Hauke Fiedler, Gerhard Krieger, Manfred Zink, German Aerospace Center (DLR), Germany

11:00 **(9.2.2) Design of the DEM Calibration and Mosaicking Processor for TanDEM-X**
Birgit Wessel, Ursula Marschalk, Astrid Gruber, Martin Huber, Thomas Hahmann, Achim Roth, Martin Habermeyer, German Aerospace Center (DLR), Germany

11:20 **(9.2.3) Analysis of Potential GMTI Performance of TanDEM-X**
Christoph Schaefer, Axel Wagner, EADS Astrium, Germany

11:40 **(9.2.4) Design and Performance of the TanDEM-X T/R Modules**
Kristina Biller, Helmut Dreher, Andreas Fleckenstein, Georg Hoefer, Marcus Wahl, EADS Defence Electronics; Markus Adolph, Ulrich Hackenberg, Ralf Rieger, EADS Deutschland GmbH; Rudolf Zahn, EADS, Germany

12:00 **(9.2.5) The TOR Payload on TanDEM-X**
Ludwig Grunwaldt, GeoForschungsZentrum Potsdam, Germany

12:20-13:45 Lunch break

Ludwig-Dürr
Session 9.3: MTI and Change Detection II (invited)

Chairmen: Joachim Ender, FGAN e. V., Germany; Pascale Dubois-Fernandez, ONERA, France

10:40 **(9.3.1) Modeling of change detection in VHF- and UHF-band SAR**
Lars Ulander, FOI, Sweden

11:00 **(9.3.2) STAP or Along-Track Interferometry: two different perspectives**
Helene Oriot, Hubert Cantalloube, Bernard Vaizan, ONERA, France

11:20 **(9.3.3) Moving Target Signals in High Resolution Wide Swath SAR**
Martina Gabele, Gerhard Krieger, German Aerospace Center (DLR), Germany

11:40 **(9.3.4) Detection of Traffic Congestion in SAR Imagery**
Gintautas Palubinskas, Hartmut Runge, German Aerospace Center (DLR), Germany

12:20-13:45 Lunch break

Theodor-Kober
Session 9.4: Differential Interferometry, Multi-Pass SAR and SAR Tomography

Chairmen: Scott Hensley, Jet Propulsion Laboratory, USA; Helmut Rott, Univ. of Innsbruck, Austria

10:40 **(9.4.1) X-Band Airborne DInSAR With the OrbiSAR System: New Results**
Stefano Perna, Università degli Studi di Napoli "Parthenope", Italy; Christian Wimmer, Wimmer Consulting, Germany; Joao Moreira, Orbisat, Brazil; Gianfranco Fornaro, CNR-IREA, Italy

11:00 **(9.4.2) Impact of atmospheric phase screen and target decorrelation of ground based SAR Differential interferometry**
Fabio Rocca, Politecnico di Milano; Davide D'Aria, Aresys; Bernardini Giulia, IDS; Andrea Monti Guarnieri, Politecnico di Milano; Pier Paolo Ricci, IDS Ingegneria dei Sistemi SpA, Italy

11:20 **(9.4.3) Recent Developments and Applications of Multi-Pass Airborne Interferometric SAR using the E-SAR System**
Rolf Scheiber, Irena Hajnsek, Ralf Horn, Konstantinos Papathanassiou, Pau Prats, Alberto Moreira, German Aerospace Center (DLR), Germany

11:40 **(9.4.4) Long-Term and Short-Term Surface Deformation Mapping by Repeat-Pass Satellite SAR**
Chih-Tien Wang, Kun-Shan Chen, National Central University, Jhongli, Taiwan; Jong-Sen Lee, NRL; Wolfgang Boerner, UIC Chicago, USA

12:00 **(9.4.5) New results on dynamic instability of Antarctic Peninsula glaciers detected by TerraSAR-X ice motion analysis**
Helmut Rott, Univ. of Innsbruck, Austria; Michael Eineder, Dana Floricioiu, German Aerospace Center (DLR); Thomas Nagler, Environmental Earth Observation IT GmbH, Austria

12:20-13:45 Lunch break

Alfred-Colsman
Session 10.1: Feature Extraction, Image Classification and Segmentation II

Chairman: Christoph Schaefer, EADS Astrium, Germany

13:45 **(10.1.1) Time-frequency analysis of point target behavior in high resolution single polarization SAR images**
Marc Spigai, Thales Alenia Space; Céline Tison, Jean-Claude Souyris, CNES, France

14:05 **(10.1.2) Computer-supported training for the interpretation of radar images**
Daniel Szentes, Bela Bargel, Anton Berger, Wolfgang Roller, Fraunhofer-IITB, Germany

14:25 **(10.1.3) Automatic Fusion of SAR and Optical Imagery based on Line Features**
Jan Wegner, Leibniz University of Hannover; Jordi Inglada, Céline Tison, CNES, France

14:45 **(10.1.4) Scattering centre extraction for target classification**
Emanuela Cerrone, Chris Baker, University College London, United Kingdom; Kwag Young, Korea Aerospace University, Korea

15:05 **(10.1.5) Specific Post-processing Algorithms Fused for Ocean Monitoring in SAR Images**
Marivi Tello, Carlos López-Martínez, Jordi Mallorqui, Universitat Politecnica de Catalunya (UPC), Spain

15:30-16:00 Awards presentation and Closing Remarks

Hugo-Eckener
Session 10.2: Airborne and UAV SAR

Chairmen: Matthias Weiß, FGAN, Germany; Gregory Bonin, ONERA, France

13:45 **(10.2.1) The ONERA compact SAR in Ka band**
Jean-Francois Nouvel, Olivier Ruault Du Plessis, ONERA, France

14:05 **(10.2.2) First Flight Trials with ARTINO**
Matthias Weiß, Olaf Peters, Joachim Ender, FGAN e. V., Germany

14:25 **(10.2.3) Impact of Platform Attitude Disturbances on the 3D Imaging Quality of the UAV ARTINO**
Jens Klare, Andreas Brenner, FGAN-FHR; Joachim Ender, FGAN e. V., Germany

14:45 **(10.2.4) F-SAR - DLR's advanced airborne SAR system onboard DO228**
Ralf Horn, Anton Nottensteiner, Rolf Scheiber, German Aerospace Center, Germany

15:05 **(10.2.5) The Airborne SAR System SETHI: Airborne Microwave Remote Sensing Imaging System**
Gregory Bonin, Philippe Dreuillet, ONERA, France

15:30-16:00 Awards presentation and Closing Remarks

Ludwig-Dürr
Session 10.3: Along-track Interferometry, MTI, STAP

Chairmen: Nick Stacy, DSTO, Australia; Wolfram Bürger, FGAN-FHR, Germany

13:45 **(10.3.1) Estimation of the Surface Velocity Field of Temperate Glaciers Using Airborne SAR Interferometry**
Pau Prats, Christian Andres, Rolf Scheiber, Ralf Horn, German Aerospace Center (DLR); Andreas Reigber, Berlin University of Technology, Germany

14:05 **(10.3.2) Acceleration Independent Along-Track Velocity Estimation of Moving Targets**
Stefan Baumgartner, Gerhard Krieger, German Aerospace Center (DLR), Germany

14:25 **(10.3.3) ATI Slow Target Detection in a Log Likelihood Framework**
Nick Stacy, Mark Preiss, DSTO, Australia

14:45 **(10.3.4) Space-Time Adaptive Detection with Array Antennas**
Wolfram Bürger, Ulrich Nickel, FGAN-FHR, Germany

15:30-16:00 Awards presentation and Closing Remarks

Theodor-Kober
Session 10.4: SAR Interferometry (invited)

Chairmen: Fabio Rocca, Politecnico di Milano, Italy; Richard Bamler, German Aerospace Center (DLR), Germany

13:45 **(10.4.1) TerraSAR-X High Resolution SAR-Interferometry**
Nico Adam, Nestor Yague-Martinez, Richard Bamler, German Aerospace Center (DLR), Germany

14:05 **(10.4.2) Moving from PS to Slowly Decorrelating Targets: A Prospective View**
Alessandro Ferretti, Fabrizio Novali, Tele-Rilevamento Europa - T.R.E. srl; Fabio Rocca, Claudio Prati, Francesco De Zan, Politecnico di Milano; Tele-Rilevamento Europa - T.R.E. srl, Italy

14:25 **(10.4.3) PALSAR Interferometric potential for observing the solid earth**
Masanobu Shimada, Masato Ohki, Japan Aerospace Exploration Agency, Japan

14:45 **(10.4.4) Water Defense System Monitoring using SAR Interferometry**
Ramon Hanssen, Freek van Leijen, Delft University of Technology, The Netherlands

15:30-16:00 Awards presentation and Closing Remarks

Friday, June 6, 2008

9:00-12:00 **Technical Tour**

GENERAL INFORMATION

EUSAR 2006 CONFERENCE SECRETARIAT
For detailed information please contact:

VDE-Conference Services
Hatice Altintas / Jacqueline Born
Stresemannallee 15
60596 Frankfurt
Germany
Phone: +49-(0)69-63 08- 477 / 229
Fax: +49-(0)69-96 31-5213
E-mail: vde-conferences@vde.com
URL: www.vde.com

EUSAR 2008 CONFERENCE WEB SITE
A homepage presenting the latest information related to the conference may be found at: **www.eusar.de**

REGISTRATION ON-SITE
The registration desk on site will be open at the following office hours:

Monday,	June 02, 2008	08:00 - 18:00
Tuesday,	June 03, 2008	08:00 - 18:00
Wednesday,	June 04, 2008	08:00 - 18:00
Thursday,	June 05, 2008	08:00 - 16:00

REGISTRATION FEES
On-Site Registration

Presenting Author	715,-- EUR
Member (VDE, EUREL, IEEE)*	715,-- EUR
Corporate VDE-member	745,-- EUR
Non-member	820,-- EUR
Member of Universities* (VDE-, EUREL-, EEE Members)	370,-- EUR
Student ** (undergraduates only - including CD-ROM, and Conference Dinner)	55,-- EUR
Tutorial***	250,-- EUR
Additional Copy of Proceedings	80,-- EUR
Additional Dinner Ticket ****	70,-- EUR

* Participants applying for the membership fee must include a copy of their membership card to the registration form.

** A copy of the student's certification card has to be endorsed by a supervisor or head of department and must be attached to the registration form.

*** The tutorial registration includes only the participation to the tutorial, the Tutorial Handouts, and the coffee breaks.

**** Participation at Social Program only.

- In order to get advantage of the reduced fees for members, you can apply for VDE Membership. VDE membership application form: VDE Membership Application Form

- Presenting authors, co-authors, committee members and session chairs are not exempt from paying registration fees.

Regular Conference Registration and Student Registration
- Member and non member registration includes admission to all plenary and technical sessions and to the daily luncheons, the EUSAR 2008 welcome reception at the conference center, and the conference dinner on the Boat, one copy of the Proceedings
- Student registration proceedings as CD-ROM only.
- Accompanying persons may register in conjunction with a full delegate. The fee includes admission to the conference dinner and the Welcome reception at the conference center, but not to the technical sessions.

PROCEEDINGS
All papers accepted for presentation at the conference will be published in the proceedings incl. the CD-ROM. The proceedings will be handed on-site to all delegates attending the event. Proceedings will be on sale during the conference (upon availability) at Euro 80,-

BADGES
Delegates will receive badges for the Conference showing their name, company, and registration number. All participants are kindly requested to wear their badge throughout the conference, even at social events. **Lost badges will not be replaced. A new registration will mandatory**.

PAYMENT
Payment for registration, hotel, tours and visits, including bank charges and processing fees, must be made in Euro. The conference fee has to be fully paid in advance. **The Invoice for the registration will be sent after full payment has been received**.

The following **methods of payment** are accepted:
- Cheque in EURO (€) payable to VDE and sent together with the registration form by mail. Checks must be drawn on German based banks, otherwise a fee of 20,- EUR must be added.

- By **credit card authorisation** as per registration form. The 16 digit card number, expiry date, security No. (last 3 digits on rear side of credit card) and holder's name must be indicated on the registration form. Signature of the card holder is mandatory.

- **Cash payment on-site** in EURO (€)

CANCELLATION
In case of cancellation, provided that written notice has been received at the VDE-Conference Services before April 30, 2008, the registration fee will be fully refunded less a handling fee of Euro 60,--. After April 30, 2008 no refund will be made. The proceedings with the conference papers will then be sent to the registrant after the conference. Your registration may be transferred to another person free of charge.

HOTEL RESERVATION / Official Travel Agency
Block bookings with special rates have been made in the hotels near the conference venue in Friedrichshafen.

Reservations may be placed exclusively via the **Tourist-Information Friedrichshafen Agency**
Tagungen und Events
Tourist - Information Friedrichshafen
Bahnhofplatz 2
88045 Friedrichshafen
Tel.: +49 (0)7541 3001-12
FAX: +49 (0)7541 72588
mailto: b.glatzel@ti.friedrichshafen.de
http://www.friedrichshafen.ws

You can make your room reservation on-line.(the different selected hotels are listed with category and prices). The hotels have been chosen under consideration of easy and time saving access to the conference centre by public transport.

VENUE
The Graf-Zeppelin-Haus in Friedrichshafen was already host of an earlier EUSAR, and is a very popular venue for such occasions. Besides, it is sited directly on the shore of Lake Constance. There are many sites of historical interest in the locality, particularly concerning the honorary citizen Dr. e.h. Ferdinand Graf von Zeppelin.

The EUSAR 2008 conference will take place in the premices of the Graf-Zeppelin-Haus:

Graf-Zeppelin-Haus
Olgastraße 20
88045 Friedrichshafen
Phone: +49 (0)7541/72071
Fax: +49 (0)7541/288150
Homepage: http://www.gzh.de

OFFICIAL LANGUAGE
All sessions will be held in English, only.

MESSAGES
Incoming mail, phone calls and e-mails for participants will be displayed on a message board near the registration desk. During the conference, messages for delegates may be sent to the registration counter on-site.
Phone: +49-(0)7541 378031
Fax: : +49-(0)7541 378032 or by
e-mail: vde-conferences@vde.com

PARKING
A parking garage with 150 parking spaces is available at the Graf Zeppelin Haus at 6,80,- EUR per day.

POSTER DISPLAY
The poster display will be open for hanging up posters on Tuesday starting at 8:00 a.m. The pin walls will be numbered according to the ID number given in the program.The standard poster size is DIN A0 format. The Poster session will take place in the Foyer of the Graf-Zeppelin-Haus.

EXHIBITION
An exhibition of EUSAR related equipment and applications is planned. The demonstration area is open to all interested parties free of charge. Alongside the conference sessions the demonstrations will be open Tuesday through Thursday to allow for extensive visit of the presenting companies..

The following companies have already registered for the exhibition:

Agilent Technologies
Astrium GmbH
CREASO GmbH
Defence R&D Canada
EADS Deutschland GmbH
Infoterra GmbH
RST GmbH

The exhibition will be open:
Tuesday, June 3, 2008 09:30 - 22:00
Wednesday, June 4, 2008 08:30 - 19:00
Thursday, June 5, 2008 08:30 - 16:00

AWARDS INFORMATION
The EUSAR 2008 Awards Committee will recognize outstanding research works presented during the conference in three different categories:
- Best Paper Award
- Best Poster Award
- Best Student Paper Award.

Each author presenting a paper and/or a poster - with the corresponding publication in the EUSAR 2008 proceedings will be considered by the Awards Committee for the Best Paper / Best Poster Award.

SOCIAL PROGRAMME
- Piano recital from Dr. Richard Klemm on Tuesday, June 03, 2008 19:30 after the key note speach

Conference Dinner, Wednesday June 4, 2008 19:30-22:30
Upon availability only ! On Wednesday, June 4th, 2008 the Conference Dinner will take place as a Dinner Cruise on MS Graf Zeppelin. It is planned to have a walk from the Conference Center to the boat. Since the capacity of the Boatis limited to 400 people, it is highly recommanded to book on time. Tickets will be provided on a first come first served basis.

The attendance to these events is included in the full conference fee. Additional tickets for accompanying persons or students may be ordered with the registration form within the given deadline and upon availability.

The recommended dress for all social events is business casual.

TECHNICAL TOUR
A technical Tour will take place on Friday, from 9:00 to 12:00. The delegates can register for the tour at the registration counter until Tuesday, June 3, 2008, 12:00 h.

INSURANCE
The organizers may not be held responsible for any injury to participants or damage, theft and loss of personal belongings. Participants should therefore make their own insurance arrangements.

EMERGENCY CALLS
Fire/Ambulance 112
Police 110
From some phones an additional "0" (0112 or 0110) might be required to place a call.

PASSPORT AND VISA REQUIREMENTS
Foreign visitors entering Germany have to present a valid Identity Card or Passport. Delegates who need a visa should contact the German consular offices or embassies in their home countries for detailed requirements. Please note that VDE Conference Services or the supporting bodies are not able to extend any " Invitation " for visa application.

SHOPPING
Most shops in Friedrichshafen are located near the conference venue.
Usually, shops are open from Monday to Friday 9.00 h-20:00 h, on Saturday 9:00 to 16:00 h. Shops are generally closed on Sunday.

TIPPING
Tipping is at your own discretion. In Germany all taxes and tips are included in hotel and restaurant bills. A good service may be rounded up by 5 to 10 %.

WEATHER / CLIMATE
In June the weather is moderate, with daily temperatures between 15 an 25 °C. However, evenings are sometimes cool. Rain is not uncommon, so be prepared!

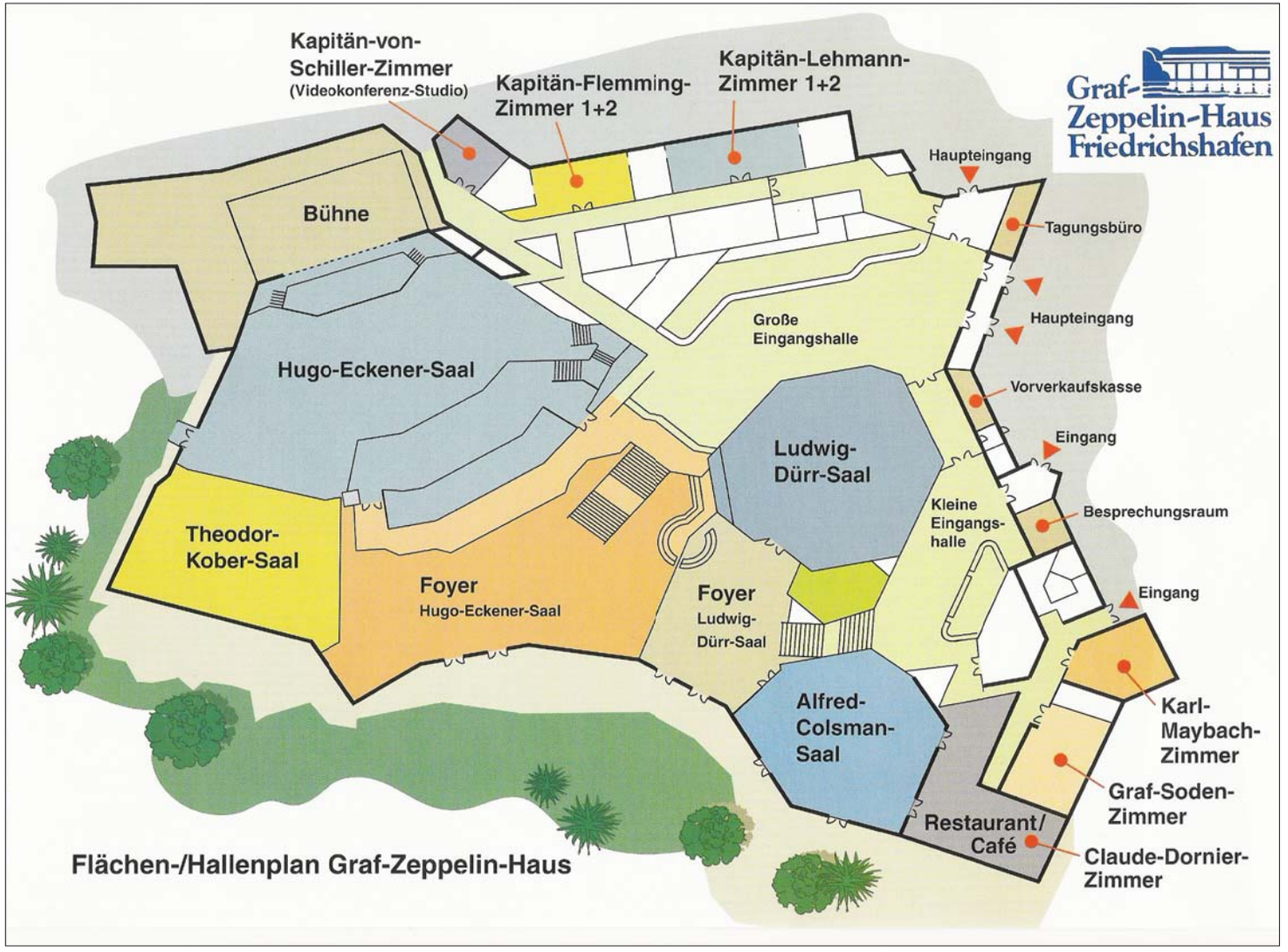
INTERNET-CAFE
There are a couple of Internet-Cafés located in Friedrichshafen. For more information please contact the registration counter. The conference center is equipped with WLAN access. (HotSpot Pass 15 min. 2,-- €/ 24 hours 18,-- €.

CURRENCY
The official currency in Germany is the Euro (€). Most credit cards (Mastercard, American Express, Visa) are accepted in hotels, department stores and restaurants. Currently (May 2008) the exchange rate is 1 Euro = 1.17221 US Dollar / 1 US Dollar (USD) = 0.85309 Euro (EUR).

ELECTRICITY / PHONE PATCH
The mains power supply is 230 V AC, 50 Hz. Authors presenting from their laptop are kindly asked to have connectors available for the mains and Texas or TAE 6 (German phone standard) to connect the phone grid.
Connectors are available at most international airports or department stores. Most hotels have TAE 6 or Texas plug-ins in the rooms or business centre.

Notes

Conference Level - Conference Rooms



Distances from the Conference Center