#### DRAFT PAPER SUBMISSION

For draft and final paper submission EDAS - a conference managing system - has to be used. If you don't have your own EDAS account yet, please create one at http://www.edas.info. Ensure that your complete affiliation including your postal address, phone number, and e-mail address are up-to-date. To register and submit your draft paper, log onto EDAS and press "Submit Paper". Paper submission consists of two steps: paper registration and draft paper submission. During paper registration you will be asked to indicate:

- the paper title and all co-authors
- a short paper abstract (between 10 and 100 words)
- the paper category (please indicate preference: Oral Presentation or Poster Presentation and if applying for the Student Paper Award)
- the most suitable topic area from the list of conference topics.

Draft paper submissions or draft paper updates may be carried out any time after the paper has been registered, but not later than

## 21 August 2011.

#### Note: all submitted papers must be in PDF.

Each draft paper should clearly and concisely state the problem addressed, describe the methodology used (e.g. including images), contain the current results and summarise the central conclusions. The title of the paper should clearly convey the essence of the work. Please avoid unusual acronyms. The submitted draft paper must be AT LEAST TWO PAGES but should not exceed four pages.

Authors will be kept informed via e-mail once they have registered their papers in EDAS. For help, please send an e-mail to info.eusar2012@cassidian.com.

#### PAPER SUBMISSION

Authors will be asked to submit their final manuscripts after their submitted abstract has been accepted by the reviewers. The final paper in PDF format will be published in the proceedings of **EUSAR 2012.** Papers will be included in the proceedings only if at least one author has registered and paid the registration fee by

## 30 January 2012.

One author may register up to two papers. For additional papers a surcharge must be paid. Late registration or late final paper submission will result in exclusion of the paper from the conference proceedings.

#### **IMPORTANT DATES**

| Draft paper submission deadline:    |    | Aug. 2011 |
|-------------------------------------|----|-----------|
| Notification of paper acceptance:   | 18 | Nov. 2011 |
| Final paper submission deadline     |    |           |
| and authors conference registration |    |           |
| Tutorials:                          |    | Apr. 2012 |
|                                     |    | Apr. 2012 |
| Technical Tour:                     | 27 | Apr. 2012 |

## ABOUT THE CONFERENCE VENUE

Nürnberg is a well developed modern city, located in the southern part of Germany, with a tinge of the medieval feel. It is a lively city which will never bore its visitors. Not only packed with urban landscapes and modern architectures, at each corner of the city lie the remains of monuments which shows the historical past of the city.

A variety of places of interests can easily be spotted throughout the city which range from the Egg of

Nürnberg, a modern high raise broadcasting tower, to what remained from the Imperial castle (Kaiserburg). It was one of the most important imperial palaces of the Middle Ages and is definitely the great-



est landmark which should not be missed by anyone visiting Nürnberg. Not only that, the city also offers an endless list of places to be seen like the Germanische Nationalmuseum. Our Ladv's Church. Albrecht Dürer's House and the Hospice of Early Spirit. Or you can just enjoy the splendidness of the natural river meadows of river Pegnitz.

# **GENERAL INFORMATION**

As in previous years, at the **EUSAR 2012** Conference about 300 contributions will be presented. The program committee will evaluate papers for technical quality, merit, novelty and clarity of presentation.

## **AWARDS**

There will be Awards for the Best Paper, Best Poster and for the three Best Student Papers. For the Student Awards the paper must not exceed two authors and the first author must be a student or a PhD candidate. During the registration process this circumstance has to be highligted, if the paper is submitted for the Student Award. All Awards will be presented on the last day of the conference.

#### **TUTORIALS**

**EUSAR 2012** will offer full-day tutorial courses including topical areas as polarimetry, interferometry, Pol-InSAR and bi-/multistatic SAR. The tutorial courses will be held on Monday, 23 April 2012 at the conference site and will include principles and basic theory, overview of applications and sensor systems. The tutorials are addressed to all **EUSAR** participants who are interested in these topics, with rudimentary to advanced technical knowledge in the particular field. Final information about the tutorials will be given as the advance program becomes available (end of 2011).





# COMMERCIAL EXHIBITION

For additional information concerning the commercial exhibition contact:

vde-conferences@vde.com

## INFORMATION AND ORGANISATION

For up-to-date conference information use the web

# www.eusar.de

- For questions concerning organisation (registration, hotel reservation, etc.), please contact: Ms. Hatice Altintas EUSAR 2012 - Conference Office c/o VDE, Stresemannallee 15, 60596 Frankfurt, Germany Phone: +49 (0) 69 / 63 08-477 Fax: +49 (0) 69 / 96 31 52 13 E-mail: vde-conferences@vde.com
- For questions concerning abstracts, papers, or conference program, please contact: Matthias Weiß (Fraunhofer-FHR) Phone: +49 (0) 228 / 9435-267 (Fax: -633) E-mail: matthias.weiss@fhr.fraunhofer.de or Martin Kirscht (Cassidian Electronics, Friedrichshafen) Phone: +49 (0) 7545/ 8-2330 (Fax: -8981) E-mail: kirscht.eusar2012@cassidian.com
- For guestions concerning the EUSAR2012 tutorials. please contact: loachim Ender or Matthias Weiß (both Fraunhofer-FHR) Phone: +49 (0) 228 / 9435-267 E-mail: tutorials@fhr.fraunhofer.de

# Call for Papers



Organized by ITG/VDE







Technically sponsored by EUREL URSI DGON IEEE-GRSS IEEE-AESS

# 9<sup>th</sup> European Conference on Synthetic Aperture Radar

The **EUSAR** is a biennial international conference dedicated to Synthetic Aperture techniques, technology and applications in the area of Radar and Sonar.

**EUSAR** has accompanied the worldwide evolution of high resolution imaging radar, both airborne and space-borne, and has helped to establish an international community of SAR engineers and scientists. As in previous years, EUSAR 2012 will provide an excellent forum for exchanging information and discussion on a wide variety of Synthetic Aperture topics, representing the latest SAR developments. You are cordially invited to participate in EUSAR 2012 and visit the beautiful city of Nürnberg.

# **Conference Board**

| General Chairman                     | R. Zahn  | Cassidian   |  |
|--------------------------------------|--|---|--|
| Vice Chairmen                        | J. Ender   | FHR   |  |
| Program Chairman                     | M. Weiß  | FHR   |  |
| Program Board                        | A. Brenner<br>C. Heer<br>M. Kirscht<br>G. Krieger<br>M. Weiß                             | FHR<br>Astrium<br>Cassidian<br>DLR<br>FHR   |  |
| Tutorials                            | J. Ender   | FHR   |  |
| Awards Chairman                      | W. Wiesbeck  | KIT   |  |
| Finance Chairman                     | V. Schanz  | ITG/VDE   |  |
| Exhibition Chairman                  | M. Lörcher   | Cassidian   |  |
| Conference Organization              | C. Groß<br>H. Altintas   | VDE<br>VDE  |  |
| <b>EUSAR</b> Executive:              | M. Weiß  | FHR   |  |
| Honorary Members                     | W. Keydel, R. Klemm  |   |  |
| International Advisory<br>Committee: | C. Livingstone<br>P. Rosen<br>D. Gray<br>P. Lombardo<br>K. Kulpa<br>M. Shimada<br>M. Zhu | DRDC/CAN<br>JPL/USA<br>Univ. of Ad./A<br>Univ. of Roma<br>Warsaw Univ./<br>JAXA/JP<br>Ch.Acad.Sc./C |  |

# **Conference Topics**

| (A) | SAR/ISAR | <b>Systems</b> | and Sensors |
|-----|----------|----------------|-------------|
|     |          |                |             |

- A1 Airborne SAR-Systems and Missions A2 Space-borne SAR Systems and Missions (TerraSAR-X, RADARSAT 2, COSMO-SkvMed. TanDEM-X, TecSAR, ALOS, ...)
- A3 Inverse SAR (ISAR)
- A4 SAR System Simulation and Modelling
- A5 Advanced SAR Concepts and Modes (ScanSAR, TOPS, Spotlight, Squint, Bi-/multistatic, Passive)
- A6 Very Low Frequency and Millimeter Wave SAR Systems
- A7 Ultra Wide Bandwidth and High Resolution SAR
- A8 SAR System Modeling and Simulation

#### (B) SAR/ISAR Technology

- B1 SAR Antennas, T/R Modules, Phased Arrays, Digital Beam Forming, and Real-Time SAR Processing
- B2 SAR Technology (Waveform Generators, High Speed AD-Converters, ...)
- B3 SAR/ISAR Calibration and Verification (Radiometric, Polarimetric, and Interferometric)
- B4 Terrestrial SAR Tools, Artificial Targets, and Transponders
- B5 Waveform Design

#### (C) SAR/ISAR Signal Processing

- C1 SAR Image Generation, Motion Compensation, and
- C2 Signal Processing for Advanced SAR Modes (Spotlight, Squint, Bistatic, Sliding)
- C3 ISAR Signal Processing
- C4 Along and Across-Track Interferometry
- C5 Multiple Pass, Differential Interferometry, and SAR Tomography
- C6 Polarimetry and Polarimetric Interferometry
- C7 SAR/MTI, GMTI, STAP, Change Detection
- C8 Three Dimensional Imaging

## (D) SAR/ISAR Data Evaluation and Handling

- D1 Post-Processing Techniques
- D2 SAR Surveillance Urban Areas
- D3 Image Filtering, Correction, and Enhancement
- D4 Feature Extraction and Analysis, Image Classification
- D5 Data Fusion, Data Mining, and Value-Adding
- D6 Data Compression
- D7 Archiving, Data Formats, and Distribution
- D8 Product Validation, DEM Verification

## (E) Innovative SAR Concepts and Applications

- E1 Next Generation SAR Systems, Innovative SAR
- E2 Multimode and Reconfigurable SAR Systems E3 Multi-Satellite and Small Satellite SAR Systems
- E4 Three Dimensional SAR Techniques
- E5 MIMO-SAR

Ch.Acad.Sc./CN

- E6 Urban, Land Remote Sensing, Geographical Mapping
- E7 Other Synthetic Aperture Applications

## (F) Other SAR Related Subjects

# **Program Committee** Marc Acheroy - RMA - BE

Tom L. Ainsworth - Naval Research Lab. - US Dale Ausherman - General Dynamics AIS - US Chris Baker - ANU - AU Richard Bamler - DLR - DE Stefan Baumgartner - DLR - DE Patrick Berens - Fraunhofer-FHR - DE Wolfgang-Martin Boerner - UIC Chicago - US Ioachim Boukamp - Cassidian - DE Hans Braun - RST - DE Andreas Brenner - Fraunhofer-FHR - DE Antoni Broquetas - Univ. Polit. De Catalunya - ES Manfred Buchroithner - Univ. of Dresden - DE Hubert Cantalloube - ONERA - FR Delphine Cerutti-Maori - Fraunhofer-FHR - DE Florent Christophe - ONERA - FR Enzo Dalle Mese - Univ. of Pisa - IT Anthony Damini - DRDC - CA Fabio Dell'Acqua - Univ. of Pavia - IT Nilesh Desai - ISRO - IN Yves-Louis Desnos - ESA/ESRIN - IT Pascale Dubois-Fernandez - ONERA - FR Michael Edrich - Cassidian - DE Michael Eineder - DLR - DE Joachim Ender - Fraunhofer-FHR - DE Helmut Essen - Fraunhofer-FHR - DE Diane Evans - JPL - US Tom Farr - IPL - US Heinz-Peter Feldle - Cassidian - DE David Fernandes - ITA - BR Laurent Ferro-Famil - Univ. of Rennes - FR Hauke Fiedler - DLR - DE Christian Fischer - Astrium - DE Jens Fischer - DLR - DE Gianfranco Fornaro - IREA - IT Anthony Freeman - JPL - US Nicolas Gebert - ESA - NL Dirk Geutdner - EU-Commission - DE Christoph Gierull - DRDC Ottawa - CA Douglas Gray - Univ. of Adelaide - AU Hugh Griffiths - Univ. of London - UK Irena Hajnsek - DLR - DE Martti Hallikainen - HUT - FI Ramon Hanssen - TU Delft - NL Christoph Heer - Astrium - DE Scott Hensley - IPL - US Wen Hong - Nat.Kev Lab.M.Im.Tech. - CN Peter Hoogeboom - TNO - NL David Hounam - DLR - DE Guo Huadong - CSA-CEODE - CN Michael Inggs - Univ. of Cape Town - ZA Kenneth James - MDA - CA Sedef Kent - TU Istanbul - TR Martin Kirscht - Cassidian - DE lens Klare - Fraunhofer-FHR - DE Richard Klemm - Fraunhofer-FHR - DE Nickolai Kolev - Naval Academy - BG Gerhard Krieger - DLR - DE Ernst Krogager - DALO - DK Krzysztof Kulpa - Warsaw Univ. of Tech. - PL Boris Kutuza - Russian Acad. of Sc. - RU Riccardo Lanari - IREA - IT Francois Le Chevalier - THALES - FR Jong-Sen Lee - NRL - US



TanDEM-X: TerraSAR-X add

on for Digital Elevation

SAR and optical image from CCN-Nürnberg

Michael Ludwig - ESA/ESTEC - NL Konstantin Lukin - NAS of Ukraine - UA Tom Lukowski - DRDC - CA Søren Madsen - IPL - US Jordi Mallorgui - Univ. Polit. de Catalunya - ES Paulo Marques - ISEL - PT Peter Meadows - BAE Systems - UK Erich Meier - Univ. of Zürich - CH Josef Mittermayer - DLR - DE Andrea Monti-Guarnieri - POLIMI / TRE - IT Oscar Mora - Altamira Information - ES Keith Morrison - Cranfield Univ. - UK Ury Naftaly - ELTA Systems - IL Hélène Oriot - ONERA - FR lörn Ostermann - Leibniz Univ. Hannover - DE Kostas Papathanassiou - DLR - DE Sang-Eun Park - Niigata Univ. - JP Eric Pottier - Univ. of Rennes - FR Shaun Quegan - Univ. of Sheffield - UK Keith Raney - Johns Hopkins Univ. - US Andreas Reigber - DLR - DE Wolfgang Rieck - MBDA Germany - DE Fabio Rocca - POLIMI / TRE - IT Hermann Rohling - TU Hamburg-Harburg - DE Jens Rosebrock - Fraunhofer-FHR - DE Paul Rosen - IPL - US Betlem Rosich - ESA/ESRIN - IT Helmut Rott - Univ. of Innsbruck - AT Motovuki Sato - Tohoku Univ. - IP Rolf Scheiber - DLR - DE Masanobu Shimada - JAXA - JP Ishuwa Sikaneta - DRDC - CA David Small - Univ. of Zürich - CH Paul Snoeij - ESA/ESTEC - NL Iean-Claude Souvris - CNES - FR Nick Stacy - DSTO - AU Martin Stangl - Astrium - DE Uwe Stilla - TU München - DE Martin Suess - ESA/ESTEC - NL Andrea Torre - Thales Alenia Space - IT Ramon Torres - ESA/ESTEC - NL Ridha Touzi - CCRS/NRC - CA Lars Ulander - FOI - SE Kees van't Kloster - ESA/ESTEC - NL Manfred Wahl - Consens - DE Ingo Walterscheid - Fraunhofer-FHR - DE Chao Wang - PRC R.S.S.G.S. - CN Matthias Weiß - Fraunhofer-FHR - DE Dan Johan Weydahl - NDRE - NO Günter Wolf - Cassidian - DE Hirovoshi Yamada - Niigata Univ. - JP Yoshio Yamaguchi - Niigata Univ. - IP Alexander Yarovoy - TU Delft - NL Kwag Young - Hankuk Av. Univ. - KR Marwan Younis - DLR - DE Rudolf Zahn - Cassidian - DE Minhui Zhu - Chin. Acad.of Sc. - CN Manfred Zink - DLR - DE Release: 03. Feb. 2011

Guido Levrini - ESA/ESTEC - NL

Chung-Chi Lin - ESA/ESTEC - NL

Otmar Loffeld - Univ. of Siegen - DE

Fabrizio Lombardini - Univ. of Pisa - IT

Pierfrancesco Lombardo - Univ. of Roma - IT

