EARTH OBSERVATION SYMPOSIUM (B1)
Enhancing Earth Observations Through Space Radar (6)

Author: Prof. Mihai Datcu
Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, mihai.datcu@dlr.de

Mr. Valentin Poncos
Canada, poncos@kepler-space.com
Prof. Marius-Ioan Piso
Romanian Space Agency (ROSA), Romania, marius-ioan.piso@rosa.ro
Dr. Florin Serban
Advanced Studies and Research Center, Romania, florin.serban@asrc.ro
Ms. Iulia Dana
Romanian Space Agency (ROSA), Romania, iulia.dana@rosa.ro
Dr. Delia Cosmina Teleaga
Advanced Studies and Research Center, Romania, delia.teleaga@asrc.ro

THE NEW METER RESOLUTION AND MULTI-MODAL SAR SYSTEMS: PERSPECTIVES OF APPLICATIONS

Abstract

Autors Valentin Poncos (ASRC), Iulia Dana (ROSA), Delia Teleaga (ASRC), Florin Serban (ASRC) Mihai Datcu (DLR), Marius-Ion Piso (ROSA)

With the increase of the Synthetic Aperture Radar (SAR) sensor resolution, and diversity of wavelength and imaging modes, a more detailed analysis and a ner description of SAR images are needed. Also, a full use of the new dimensions introduced by the coherent processing is enriching the scene information extraction. Methods of SAR Interferometry are presently extended to tomographic processing thus enabling detailed analysis of urban areas, the high diversity of man-made structures combined with the complexity of the scattering processes. Moreover, the need for automatic processing and interpretation of large-size SAR data volumes has became more and more pressing. Therefore, new innovative tools are required for a better assessment and a ner description. The presentation overviews and comments the most advanced SAR sensor missions, the methodology of SAR data interoperation and the most useful applications.