CALIMAS (CALibration - validation of Interferometric Microwave And Salinity products): 
Current status
Adriano CAMPS1, Jordi PONT1, Ignasi CORBELLA1, Marcel VALL-LOSSERA1, Jordi MALLORQUI1, Emilio GARCÍA1, Alonso HERNÁNDEZ-GUERRA1, Marcos PORTABELLA2, Alicia LAVÍN1, Antonio RIUS1, Aida FERNÁNDEZ RÍOS1, Joaquim BALLABRERA-POY2
1RS Lab, UPC / TSC, Campus Nord, Building D3, 08034 Barcelona, SPAIN
2Institut de Ciències del Mar CSIC, P. Marítim 37-49, 08003 Barcelona, SPAIN
3Institut d’Estudis Espacials de Catalunya / CRAS-UPC, SPAIN
4Faculty of Marine Sciences, UIMP, SPAIN
5Instituto Español de Oceanografía, SPAIN
6Instituto de Investigaciones Marinas-CSIC, SPAIN

Objectives:
- The CALIMAS project represents a step forward in the Spanish contribution to the development of SMOS, both in the instrument side and in the scientific side.
- The paper summarizes & updates the activities foreseen in the frame of the SMOS calibration and validation activities.

I. Objective 1: Assessment of SMOS Calibration, Stability and Image Reconstruction Algorithms
- Pre-commissioning activities (from present time to the SMOS launch date)
- Upgrade MIRAS Testing Software, consolidation of in-orbit calibration, 6-metric validation and support in the planning of the commissioning phase
- Commissioning phase activities
  - Process data downloaded from the instrument during IOC
  - Check the overall MIRAS performance and performance evaluation
  - Complete calibration parameters and sensitivity coefficients
  - Assess mapping capabilities in Dual-pol and Full-pol
- General support activities
  - Support to ESA and EADS-CASA Espacio during pre-and commissioning phases on scientific themes for which UPC has expertise

II. Objective 2: Assessment of SMOS Calibration Algorithms and Validation of the Smoothing Product by In Situ Oceanographic Measurements
- Implementation of the CD03 format in the MIRAS software
- In situ measurements (or SmOS validation)
  - Canary islands survey: on stable area of salinity retrieval algorithms
  - Gulf of Mocro (off W African)(Nov.
  - Mediterranean Sea: extending the limits of SMOS OS validation
- Mediterranean Sea: MIRAS-Testing Software, consolidation of in-orbit calibration, 6-metric validation and support in the planning of the commissioning phase
- General support activities

III. Objective 3: Combined assimilation of SMOS products and in situ measurements in an ocean circulation model
- Development of assimilation techniques for drifters data and SMOS products in a small airborne MIRAS (MIRASillo) (UPC) and GNSS-R Techniques (A. Rius, IEEC)
- Instrument preparation and programming
- Airborne campaigns
  - L-band radiometer and GNSS-reflectometer
- Data processing and geophysical variables retrieval
- Development of algorithms for retrieving ocean surface mean square slopes (rms) using GNSSP
- SSS retrieval over large Lopha and Atlantic sea (progress)
- Sample SM map from flight with L-band radiometer on R/C plane over Lopha Lopha
- MIRAS data processed by UPC
- SSS retrievals over large Lopha and Atlantic see (in progress)
- Development of algorithms for retrieving ocean surface mean square slopes (rms) using GNSSP
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Conclusions:
- Activities have been re-arranged according to ongoing projects
- SAR data processing over land cancelled
- New instruments available: Light-L-band radiometer h: 10-350 m, 45 min, 5 km
- GNSS-Reflectometers, either refurbished LAURA (for simpler and cheaper operation).

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