



## **CryoSat SAR/SARin Level1b products: assessment of BaselineC and improvements towards BaselineD**

Michele Scagliola (1), Marco Fornari (2), Jerome Bouffard (3), and Tommaso Parrinello (3)

(1) Aresys s.r.l., Milano, Italy (michele.scagliola@aresys.it), (2) ESA-ESTEC, Noordwijk, The Netherlands, (3) ESA-ESRIN, Frascati, Italy

CryoSat was launched on the 8th April 2010 and is the first European ice mission dedicated to the monitoring of precise changes in the thickness of polar ice sheets and floating sea ice. Cryosat carries an innovative radar altimeter called the Synthetic Aperture Interferometric Altimeter (SIRAL), that transmits pulses at a high pulse repetition frequency thus making the received echoes phase coherent and suitable for azimuth processing. This allows to reach a significantly improved along track resolution with respect to traditional pulse-width limited altimeters.

CryoSat is the first altimetry mission operating in SAR mode and continuous improvements in the Level1 Instrument Processing Facility (IPF1) are being identified, tested and validated in order to improve the quality of the Level1b products. The current IPF, Baseline C, was released in operation in April 2015 and the second CryoSat reprocessing campaign was jointly initiated, taking benefit of the upgrade implemented in the IPF1 processing chain but also of some specific configurations for the calibration corrections.

In particular, the CryoSat Level1b BaselineC products generated in the framework of the second reprocessing campaign include refined information for what concerns the mispointing angles and the calibration corrections.

This poster will thus detail thus the evolutions that are currently planned for the CryoSat BaselineD SAR/SARin Level1b products and the corresponding quality improvements that are expected.