List of Posters

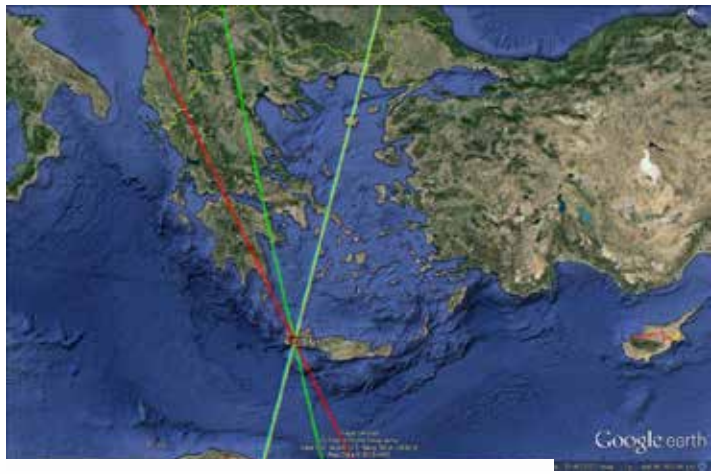
- CVL_001 - **An ESA absolute and permanent site with a transponder for the altimeter calibration of Sentinel-3, Cryosat-2, and Jason-3 in West Crete, Greece**, *Stelios Mertikas (Technical University of Crete), Constantine Mavrocordatos (ESTEC/European Space Agency), Craig Donlon (ESTEC/European Space Agency), Pierre Féménias (ESRIN/European Space Agency), Tommaso Parrinelo (ESTEC/European Space Agency)*
- CVL_002 - **Towed and static GPS buoys for CAL/VAL and SSH**, *Cédric Brachet (CNRS - INSU Technical Division), Michel Calzas (CNRS - INSU Technical Division), Christine Drezen (CNRS - INSU Technical Division), Lionel Fichen (CNRS - INSU Technical Division), Antoine Guillot (CNRS - INSU Technical Division), Philippe Téchiné (LEGOS UMR 5566), Laurent Testut (LEGOS UMR 5566), Pascal Bonnefond (GEOAZUR UMR 7329), Olivier Laurain (GEOAZUR UMR 7329)*
- CVL_003 **- Jason-1 GDR-E Reprocessing**, *Hélène Roinard (CLS), Sabine Philipps (CLS), Michael Ablain (CLS), Emilie Bronner (CNES), Nicolas Picot (CNES)*
- CVL_004 - **Global Assessment of TOPEX reprocessed products (Release 5)**, *Hélène Roinard (CLS), Sabine Philipps (CLS), Sylvie Labroue (CLS), Michael Ablain (CLS), Pierre Thibaut (CLS), Jean-Damien Desjonqueres (CNES), Nicolas Picot (CNES)*
- CVL_005 - **Evaluation of Topex Retracked Data**, *Rashmi Shah (Jet Propulsion Laboratory), Shailen Desai (Jet Propulsion Laboratory), Bruce Haines (Jet Propulsion Laboratory)*
- ~~CVL_006 - **SIRAL and SARAL Ocean Data Validation**, *Marc Naeije (TUDelft), Ernst Schrama (TUDelft), Remko Scharroo (EUMETSAT)*~~
- CVL_007 - **Evaluation of new CryoSat-2 measurements over the ocean**, *Francisco Mir Calafat (National Oceanography Centre), Calafat Francisco M. (National Oceanography Centre), Cipollini Paolo (National Oceanography Centre), Helen M. Snaith (National Oceanography Centre), Jérôme Bouffard (ESA/ESRIN), Pierre Féménias (ESA/ESRIN), Tommaso Parrinello (ESA/ESRIN)*
- CVL_008 - **A Seamless Transition Between LRM and SAR Altimetry: 3 Years Dataset Assessment of Cryosat-2 SARM**, *Matthias Raynal (CLS), Sylvie Labroue (CLS), Thomas Moreau (CLS), Laiba Amarouche (CLS), Francois Boy (CNES), Nicolas Picot (CNES)*
- CVL_009 - **The Role of the Sentinel-3 Mission Performance Centre in Maintaining High Standards within Operational Altimetry**, *Graham Quartly (Plymouth Marine Laboratory), Sylvie Labroue (CLS), Marie-Laure Frery (CLS), Andrew Shepherd (University of Leeds), Steve Baker (MSSL), Alan Muir (MSSL), Monica Roca (isardSAT), Jean-Francois Cretaux (LEGOS), Frédérique Remy (LEGOS), Benoit Meyssignac (LEGOS), Saleh Abdalla (ECMWF), Stéphane Calmant (IRD), Mathilde Cancet (Noveltis), Guillaume Valladeau (CLS), Pierre Féménias (ESA)*
- CVL_010 - **Sea Surface Height from Spaceborne GNSS-R: a Demonstration with TechDemoSat-1 Data**, *Maria Paola Clarizia (University of Michigan, Ann Arbor, MI), Christopher Ruf (University of Michigan, Ann Arbor, MI), Cinzia Zuffada (Jet Propulsion Laboratory, Pasadena, CA), Paolo Cipollini (National Oceanography Centre, Southampton)*

CVL_001

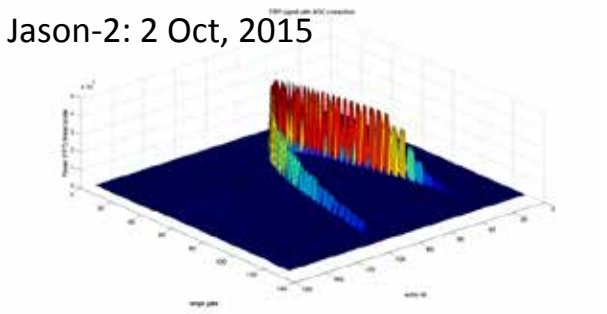
An ESA absolute and permanent site with a transponder for the altimeter calibration of Sentinel-3, CryoSat-2, and Jason-3 in West Crete, Greece

Mertikas, Stelios[1]; Mavrocordatos, Constantin[2]; Donlon, Graig[2]; Féménias, Pierre[3]; Parrinello Tommaso[2]

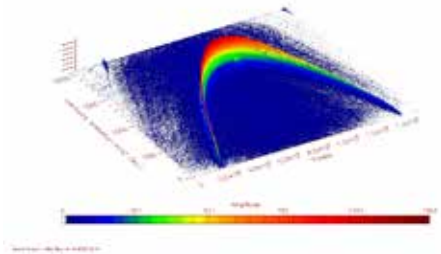
CDN1: transponder calibration site operational
Jason-2 & Cryosat-2 already carried out



Jason-2: 2 Oct, 2015



CryoSat-2: 14 May 2014.



CVL_002

Towed and static GPS buoys for CAL/VAL and SSH

BRACHET Cédric, CALZAS Michel, FICHEN Lionel, GUILLOT Antoine
CNRS – INSU -DT, Bâtiment IPEV, BP 74, 29280 Plouzané – France - Tél.:(+33).2.98.05.65.35
TECHINE Phillipe, TESTUT Laurent
LEGOS UMR5566, 14 avenue Edouard Belin, 31400 Toulouse - France
BONNEFOND Pascal, LAURAIN Olivier
GEOAZUR UMR7329- Observatoire de la Côte d'Azur – 250 rue Albert Einstein – 06560 Valbonne - France

The GPS & the towed GPS buoys

-Acquisition of high-frequency data (1-50 Hz)
-Sub-centimeter accuracy in post-processing (associated with a base station)
-Ability to deploy in the open ocean in PPP mode
-Measurement of the position of the free sea surface to calibrate altimetric satellites
-weight 20Kg, 2m diameter
-a floating drogue is tied up at the 3 ends and the center of the buoy to improve stability

-towed up to 12 knots whatever the sea state
-don't lose satellite tracking
stability: <1 cm extra movement
-autonomy: at least 5 days
-sampling: 1 to 50 Hz (to monitore waves)
-2 versions available: open sea (these pictures) and coastal (smaller)

Patent application FR n° 15/01580 CalNaGéo (DV2547)

Jason-1 GDR-E reprocessing

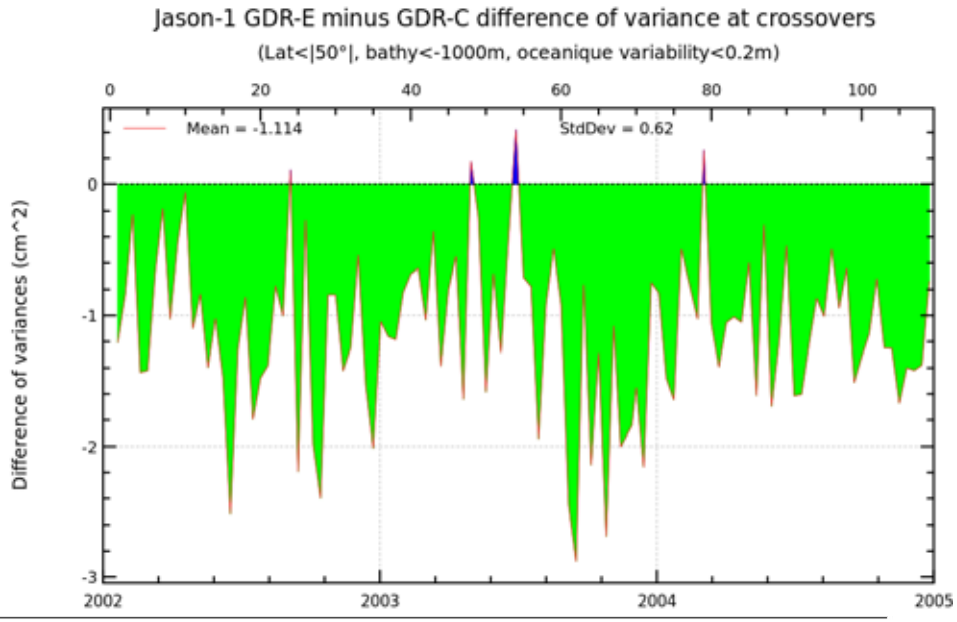
CVL_003

H. Roinard[1], S. Philipps[1], O. Lauret[1], M. Ablain[1], E. Bronner[2], N. Picot[2]
[1]CLS, Toulouse, France, hroinard@cls.fr [2]CNES, Toulouse, France

FIRST RESULTS OF JASON-1 GDR-E PERFORMANCES

The standard deviation of SSH differences is lower for GdrE than for GdrC data , leading to a global SSH reduction of variance of 1.1 cm².

➔ **Variance at SSH crossovers is lower using GDR-E data than GDR-C.**



Jason-1 GDR-E products availability :

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cycles	001 - 036	037 - 073	074 - 110	111 - 146	147 - 183	184 - 220	221 - 257	258 - 294	295 - 331	332 - 368	369-374, 500-521	522 - 537
GDR-E Availability	Released on AVISO and PODAAC			Release scheduled by end of October 2015				Release scheduled by end of November 2015				

Data available on: ftp://avisoftp.cnes.fr/AVISO/pub/jason-1/
Handbook available on: ftp://avisoftp.cnes.fr/AVISO/pub/jason-1/documentation_gdr_e/Handbook_Jason-1_v5.0_Sept2015.pdf

Global Assessment of TOPEX reprocessed products (Release 5)

H. Roinard[1], S. Philipps[1], S.Labroue[1], M. Ablain[1], P. Thibaut[1], J-D. Desjonquères[2], N. Picot[2]
[1]CLS, Toulouse, France, hroinard@cls.fr [2]CNES, Toulouse, France

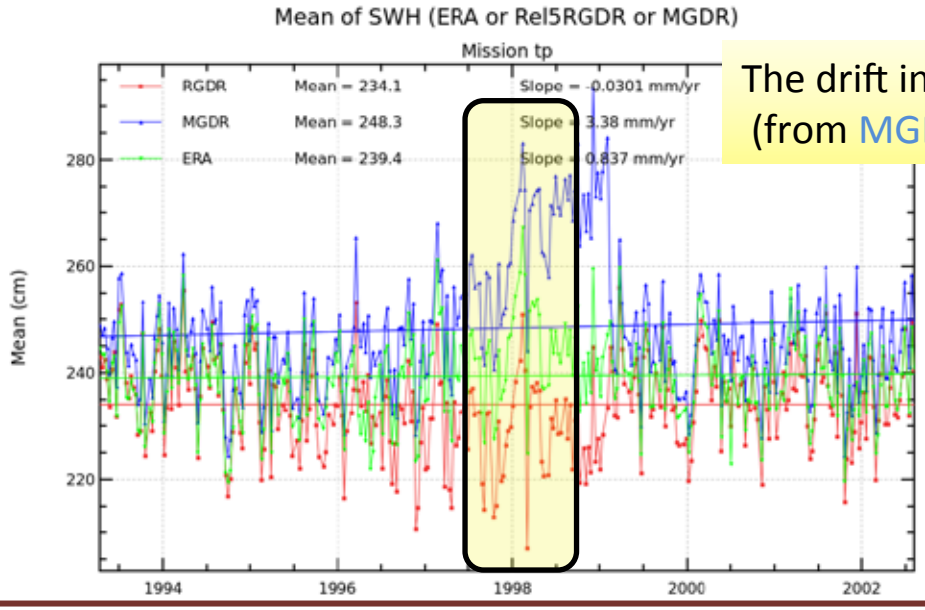
CVL_004

In **TOPEX-A (MGDR): change in the altimeter Point Target Reponse** (PTR) after cycle ~190 impacts are:

- Increase of SWH
- Increase of range rms
- Error on altimeter range

Other quantities are impacted as sea state bias or ionopheric correction.

One aim of TOPEX retracking is to better take into account the PTR drift that occurs at the end of sideA altimeter. Retracking should provide corrected SWH and range measurements .



The drift in MGDR SWH is reduced (from MGDR (blue) to RGDR (red) curve)

More results on « **Global Assessment of TOPEX reprocessed products (Release 5)** » poster, in the session Regional and Global CAL/VAL for Assembling a Climate Data Record.

Evaluation of new CryoSat-2 measurements over the ocean

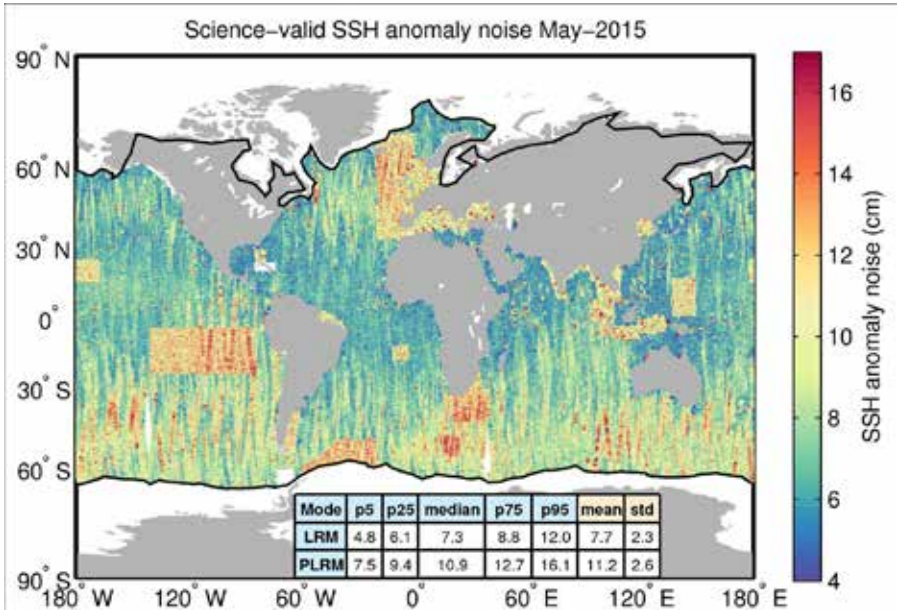
National Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

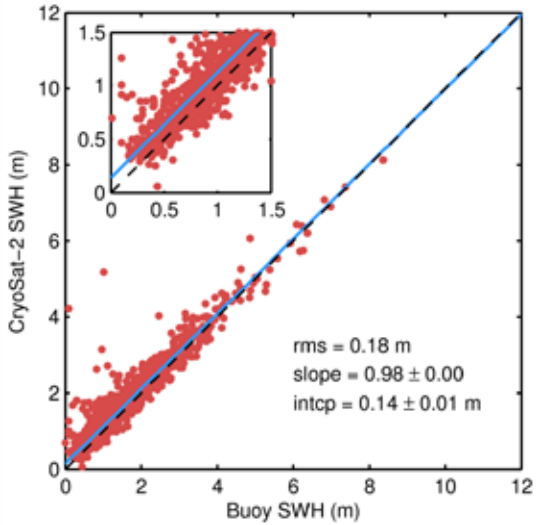
F. M. Calafat, P. Cipollini, J. Bouffard, H. Snaith, P. Féménias

CVL_007

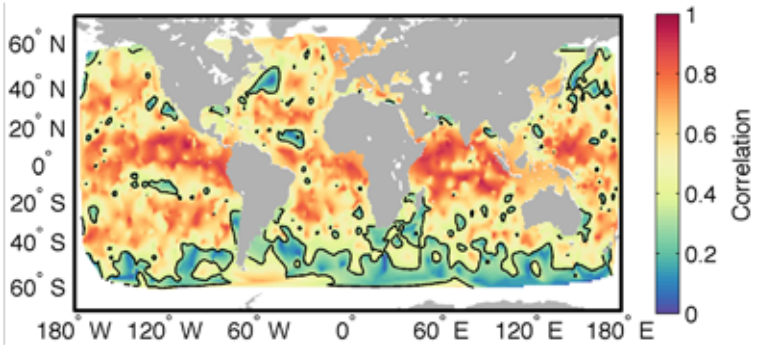
The **CryoSat Project** has been generating since April 2014 additional ocean products, namely the Interim Ocean Product (IOP) and the **Geophysical Ocean Product** (GOP). Our focus here is on the GOP data, which have consolidated orbits and are available 30 days after acquisition.

Global assessment in terms of noise (1.4 cm LRM / 2.3 cm PLRM) and crossovers (5.4 cm).

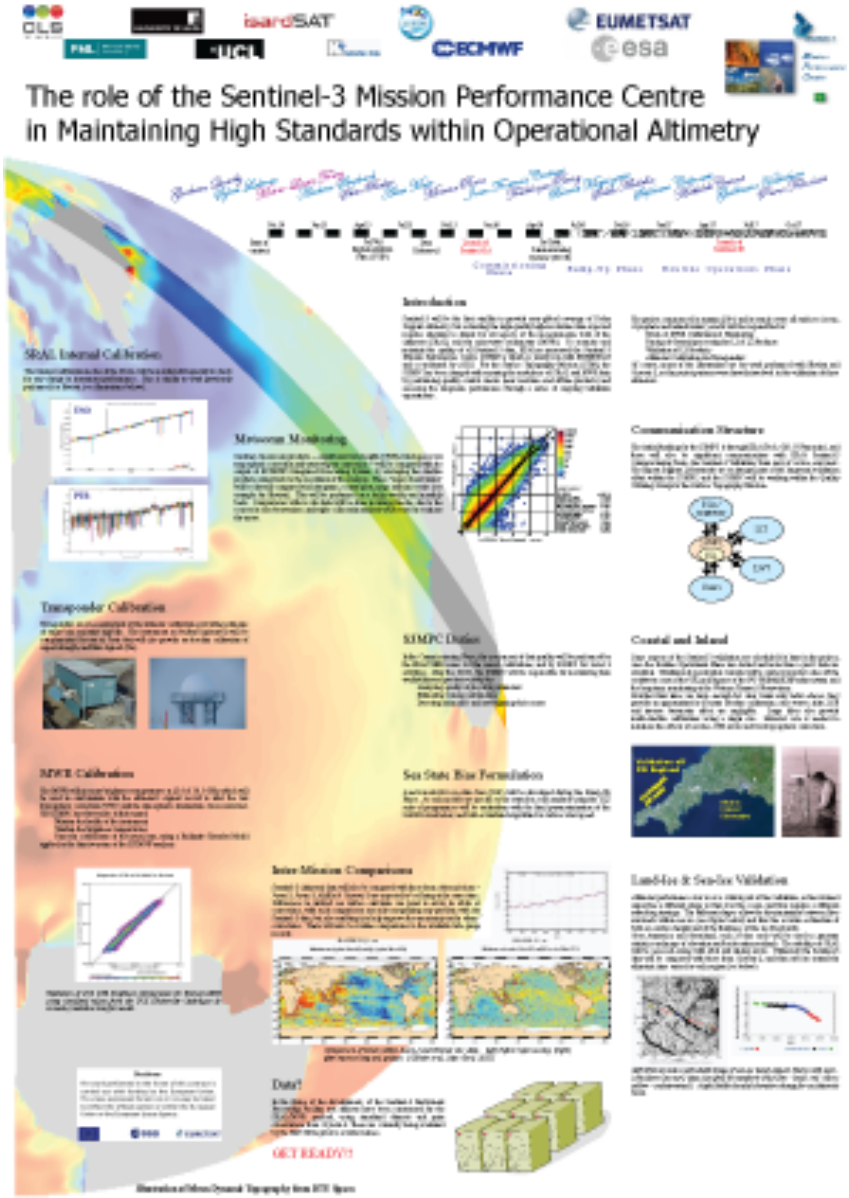




Global validation against in situ observations (tide gauges, buoys, Argo floats) and model data. Also comparison with Jason-2.



CVL_009



Sentinel-3A is ready for launch

The S3MPC is ready for:

- Verification and parametrisation of the ground processing baseline (SAR mode)
- Monitoring of SRAL and MWR performance
- Cal/Val activities for topography over the ocean + ice + inland waters
- Cal/Val activities for Wind and Waves
- Calibration with transponder
- Calibration with in-situ data

Are you ready?

Launch due: 10th Dec. 2015

Test datasets soon to be available to users

CVL_010

National Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

Sea Surface Height from Spaceborne GNSS-R: A Demonstration with TechDemoSat-1 Data

Maria Paola Clarizia[1], Christopher Ruf[1],
Cinzia Zuffada[2] and Paolo Cipollini[2]

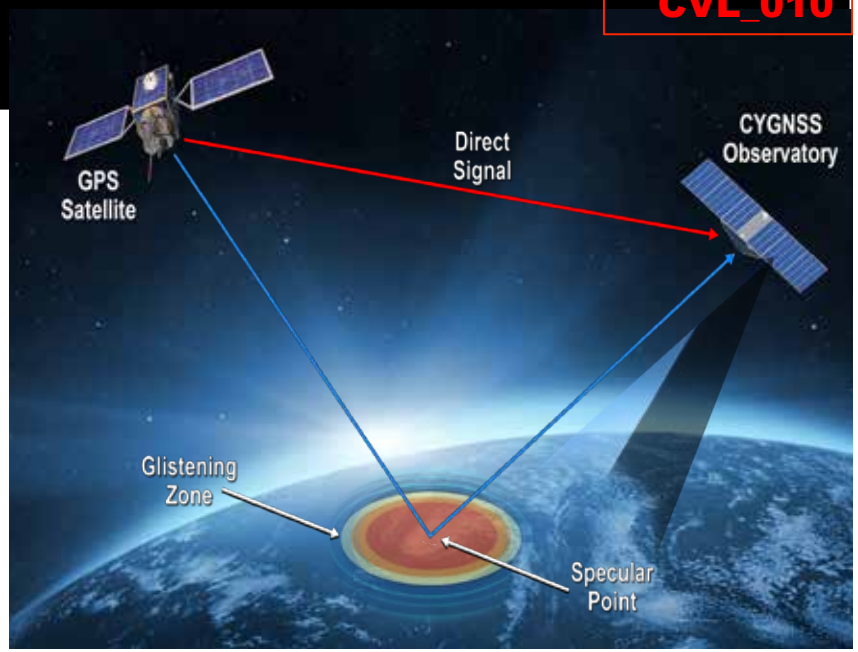
1: University of Michigan, Ann Arbor USA
2: Jet Propulsion Laboratory, California Institute of Technology, Pasadena USA
3: National Oceanography Centre (NOC), Southampton UK

Poster Overview

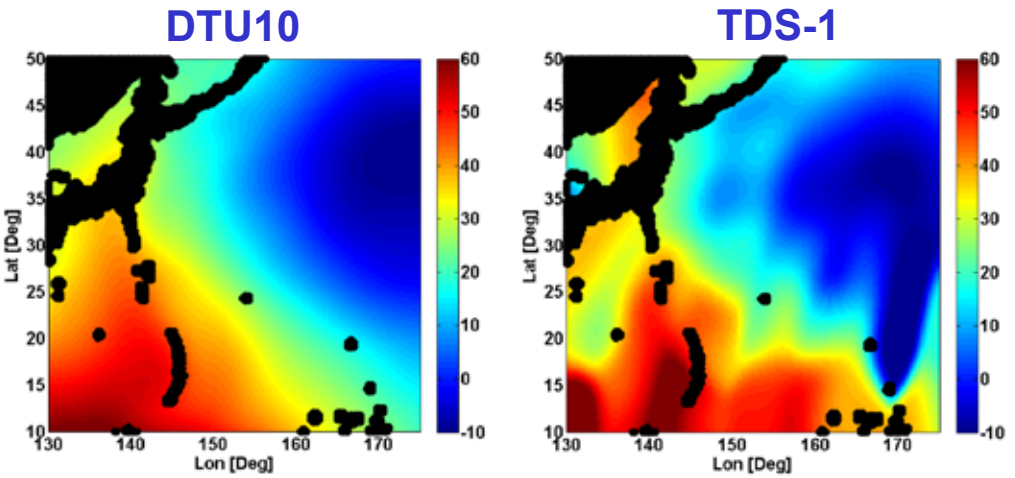
CVL_010

A ‘first timer’: Ocean Topography from spaceborne GNSS-data

GNSS-R=Global Navigation Satellite System-Reflectometry



- We use GNSS-R data from the TechDemoSat-1 satellite
  - (not optimized for height measurement!)
- The SSH is estimated over two oceanic regions (SW Atlantic, NW Pacific)
- Encouraging agreement with the DTU10 Mean Sea Surface (MSS) over the two regions



Poster no. CVL_10
In “Regional and Global CAL/VAL for assembling a climate data record” on THURSDAY