

## CryoSat Third User Workshop - Preliminary Programme (updated 20/02/2013)

### Monday 11 March 2013 - Pre-workshop Programme

- 15:00 17:30 Open Forum for Technical Questions and Answers  
 Location: Lecture room "WIL A317"  
 Building: "Willers-Bau", Zellescher Weg 12-14, 01069 Dresden
- 17:30 18:30 Pre-Registration and Welcome Drink, Building "Trefftz-Bau", Zellescher Weg 16

### Day 1, Tuesday 12 March 2013

08:15	08:45	Registration		
		<b>Opening Session</b>		<b>Chairs: J. Benveniste &amp; T. Parrinello</b>
08:45	08:55	Dresden Welcome		TU Dresden
08:55	09:05	ESA Welcome		ESA
09:05	09:45	Seymour Laxon Memorial	R. Cullen / A. Shepherd	ESA / University of Leeds
09:45	09:55	Workshop Objectives	J. Benveniste	ESA
09:55	10:35	CryoSat Mission Status - Esa's Ice Explorer Mission: Two Years in Operations. Status and Achievements	T. Parrinello	ESA
10:35	11:10	Coffee Break		
		<b>Mission, Instrument and Data Processing</b>		<b>Chairs: R. Cullen &amp; M. Roca</b>
11:10	11:30	CryoSat-2: Three Years of Operations (almost)	K. Adamson	ESA
11:30	11:50	CryoSat-2 Precision Orbit Determination including Altimeter Calibration and Validation	E. Schrama	TU Delft
11:50	12:10	CryoSat SIRAL FBR, Stack & L1b Calibration with TRP	M. Roca	isardSAT
12:10	13:10	Lunch		
13:10	13:30	Measuring the Effective Along-Track Resolution of CryoSat	M. Scagliola	Aresys
13:30	13:50	Pending Anomalies and Problems in CryoSat Data Products	C. Bouzinac	ESA
13:50	14:10	Cal/Val Campaign Status	M. Davidson	ESA
14:10	14:30	An improved Water Vapour Path Delay Correction for the CryoSat Mission Over the Ocean	J. Stum	CLS
14:30	14:50	<b>Discussion</b>		
		<b>Cryosphere</b>		<b>Chairs: R. Dietrich &amp; C. Haas</b>
14:50	15:10	Cross-Validating ICESat-1 and CryoSat-2 using Tide Gauge Measurements	N. Pie	Center for Space Research
15:10	15:30	A Comparative Analysis of the Sea Ice Freeboard from CryoSat, CryoVEx and IceBridge	S. K. Rose	DTU Space
15:30	16:00	Coffee Break		
		<b>Cryosphere Cont.</b>		<b>Chairs: R. Dietrich &amp; C. Haas</b>
16:00	16:20	Sea Ice Thickness and Volume Changes from CryoSat-2	K. Giles	University College London
16:20	16:40	Using CryoSat-2 SARIn Mode Data over Sea Ice to Correct for Off-Nadir Ranging to Leads	T. Armitage	University College London
16:40	17:00	In-situ Calibration and Validation of CryoSat-2 Observations over Arctic Sea Ice North of Svalbard and in Fram Strait	S. Gerland	Norwegian Polar Institute
17:00	17:20	Mass Balance of Sea Ice in both Hemispheres: Airborne Validation of CryoSat-2 and ICESat Freeboard and Thickness	S. Hendricks	Alfred Wegener Institute
17:20	17:40	<b>Discussion</b>		
17:40	19:00	Welcome Drink in Poster Area		

### Day 2, Wednesday 13 March 2013

<b>Cryosphere Cont.</b>			<b>Chairs: K. Giles &amp; R. Forsberg</b>
09:00	09:20	First Results of CryoSat-2 Performance over Multiyear and Seasonal Sea Ice	J. Beckers University of Alberta
09:20	09:40	Snow Radar Derived Surface Elevations and Snow Depths over Sea-Ice off Greenland During Three Icebridge Campaigns	B. Holt Jet Propulsion Laboratory
09:40	10:00	First Results from a CryoSat-2 Calibration Experiment in the East Antarctic Sea Ice Zone, SIPEX-2	J. Lieser University of Tasmania
10:00	10:20	CryoSat Cal/Val – Accuracy of the CryoSat Products	V. Helm Alfred Wegener Institute
10:20	10:50	Coffee Break	
<b>Cryosphere Cont.</b>			<b>Chairs: K. Giles &amp; R. Forsberg</b>
10:50	11:10	Ground Validation of CryoSat-2 on Austfonna, Svalbard	K. Langley University of Oslo
11:10	11:30	Greenland Ice Sheet Changes from CryoSat, IceSat and GRACE	R. Forsberg Technical University of Denmark
11:30	11:50	<b>Discussion</b>	
11:50	12:50	<b>Poster Session</b>	
12:50	13:50	Lunch	
<b>Cryosphere Cont.</b>			<b>Chairs: A. Shepherd &amp; E. Schrama</b>
13:50	14:10	Validation of CryoSat-2 Products over the Continental East Antarctic Ice Sheet	L Schröder TU Dresden
14:10	14:30	Constraining Ice Sheet Mass Balance Trends using CryoSat-2 and Laser Altimetry	J. Griggs University of Bristol
14:30	14:50	Analysis of Recent Mass Balance of Amery Ice Shelf derived from CryoSat-2 Radar Altimetry	J. Liu (presented by M. Scaioni) Tongji University
14:50	15:10	Mass Depletion of Glaciers on the Northern Antarctic Peninsula Observed by Altimeter and SAR Measurements	J. Wuite ENVEO IT
15:10	15:30	<b>Discussion</b>	
15:30	16:00	Coffee Break	
<b>Cryosphere Cont.</b>			<b>Chairs: J. Bamber &amp; V. Helm</b>
16:00	16:20	The Evolution of an Antarctic sub-Glacial Lake from CryoSat Interferometric Mode Observations	M. McMillan University of Leeds
16:20	16:40	The Study of DEM and Height Change from CryoSat Data at Dome A and Grove Mountains, East Antarctica	C. Zhou Wuhan University
16:40	17:00	Alpine Snow, Glaciers and Inland Water Bodies Study in Part of Indian Region using CryoSat-2 Radar Altimeter Data	P. Thakur Indian Institute of Remote Sensing
17:00	17:20	Outcome of the Antarctic CryoVEx Campaigns and First CryoSat-2 Validation Results	C. Knöfel TU Dresden
17:20	17:40	<b>Discussion</b>	
19:30	19:30	Unhosted dinner - Restaurant "Altmarktkeller" - address: Altmarkt 4, 01067 Dresden	

### Day 3, Thursday 14 March 2013

<b>Ocean, Land &amp; Inland Water</b>			<b>Chairs: W. Smith &amp; C. Gommenginger</b>
08:40	09:00	CryoSat Plus for Oceans: Ocean user Requirements, and Assessment of CryoSat-2 Data	P. D. Cotton Satellite Oceanographic Consultants Ltd
09:00	09:20	CryoSat-2 Ocean Wind and Wave Products: Global Validation and Assimilation	S. Abdalla ECMWF
09:20	09:40	Observing the Ocean using CryoSat-2's Synthetic Aperture Radar (SAR) Mode	K. Giles University College London
09:40	10:00	A Validation Exercise for CryoSat-2 in SAR Mode in the German Bight Area	L. Fenoglio-Marc Technical University Darmstadt
10:00	10:20	Quality Assessment of CryoSat-2 Data Over Ocean in LRM&SAR Modes	S. Labroue CLS
10:20	10:40	<b>Discussion</b>	
10:40	11:10	Coffee Break	
<b>Ocean, Land &amp; Inland Water Cont.</b>			<b>Chairs: R. Scharroo &amp; N. Picot</b>
11:10	11:30	The Performance of CryoSat-2 as an Ocean Altimeter	R. Scharroo Altimetrics LLC

11:30	11:50	Sensitivity of SAR Mode Altimeter to Swell Effect	T. Moreau	CLS
11:50	12:10	Contributions of CryoSat, Envisat, and Jason-1 to Improvements in Global Marine Gravity Accuracy	E.S. Garcia	University of California, San Diego
12:10	12:30	Experiments with CryoSat2 FBR SAR Data over Ocean Surfaces	W. Smith	NOAA
12:30	12:50	<b>Discussion</b>		
12:50	13:50	Lunch		
		<b>Ocean, Land &amp; Inland Water Cont.</b>		<b>Chairs: P. Cipollini &amp; L. Fenoglio-Marc</b>
13:50	14:10	CryoSat Ocean Processor : Presentation and Preliminary Validation Results	S. Urien	CLS
14:10	14:30	Coastal SAR Altimetry Data from the eSurge Processor	P. Cipollini	National Oceanography Centre
14:30	14:50	Analysis and Inter-Calibration of Wet Path Delay Datasets to Compute the Wet Tropospheric Correction for CS-2 over Ocean	M. J. Fernandes	University of Porto
14:50	15:10	Applications of CryoSat-2 SAR & SARin Modes for the Monitoring of River Water Levels	N. Bercher	LEGOS/CNRS
15:10	15:40	Coffee Break		
		<b>Ocean, Land &amp; Inland Water Cont.</b>		<b>Chairs: P. Cipollini &amp; L. Fenoglio-Marc</b>
15:40	16:00	Performance of CryoSat-2 in SARIN Mode over Great Rivers	S. Calmant (Presented by N. Bercher)	LEGOS/IRD
16:00	16:20	Inland Water SAR Altimetry: New Techniques and Methods for the Hydrological Exploitation of CryoSat Data	S. Dinardo	SERCO/ESRIN
16:20	16:40	<b>Discussion</b>		
		<b>Closing Session</b>		<b>Chairs: J. Benveniste &amp; T. Parrinello</b>
16:40	17:10	Open Forum		
17:10	17:40	Conclusion and General Discussion		
17:40	17:50	Workshop Closure		

## Poster Session - Scheduled on Wednesday, 11:50-12:50

### Mission, Instrument and Data Processing

The CryoSat Payload Data Ground Segment and Data Processing	B. Frommknecht	ESA
Operational and Reprocessed CryoSat Product Quality Assessment	R. Mannan	Telespazio VEGA
CryoSat-2 SIRAL Calibration: Strategy, Application and Results	M. Fornari	ESA

### Cryosphere

Long-term Antarctic Surface Elevation Trends from Satellite Radar and Laser Altimetry	B. C. Gunter	Delft University of Technology
Evaluation of CryoSat-2 for Height Retrieval over the Himalayan Range	A. Dehecq	Institut de Physique du Globe de Strasbourg (IPGS)
CryoSat-2's SARin Mode in the Coastal Regions of Greenland	A. Horvath	TU Munich
Cryosphere: Recognizing the Culture of Space-Based EO Applications in Canada's Northern Regions Management	G. Aubè	Canadian Space Agency
Potential Synergy of RADARSAT-2 and CryoSat-2 for Sea Ice Volume Flux Estimates in the Canadian Arctic Archipelago	S.E.L. Howell	Environment Canada
Application of CryoSat-2 GDR data from DEM generation of Antarctica	F. Wang	Beijing Normal University
Sea Ice Measurements in McMurdo Sound, Antarctica for the Validation of Remotely Sensed Sea Ice Properties.	D. Price (presented by Justin Becker)	University of Canterbury
Comparison of Sea Ice Freeboard and Thickness Distributions from Aircraft Data & CryoSat-2	R. Ricker	Alfred Wegener Institute for Polar and Marine Research

CryoSat Radar Altimetry over Antarctic Sea Ice	R. Tilling	Centre for Polar Observation and Modelling
Waveform Analysis of CryoSat's Radar Altimeter System over Arctic Sea Ice	M. Zygmuntowska	Nansen Environmental and Remote Sensing Center
CryoSat-2 Waveform Shape and Signal Penetration along the 2011 Greenland Inland Traverse	T. Overly	Dartmouth College

#### **Ocean - Mission, Instrument and Data Processing**

Performance of ESA CryoSat-2 GDR Data Over Open Ocean	D. Dettmering	Deutsches Geodätisches Forschungsinstitut (DGFI)
Quality Assessment of CryoSat-2 ESA Level 2 Products Over Ocean	S. Labroue	CLS
Preliminary Analysis between CPP Retracker and SAMOSA Retracker over open Ocean in SAR Mode	S. Dinardo	SERCO/ESRIN

#### **Coastal Ocean**

Coastal SAR Altimetry: An Experiment in the Northern Caspian Sea	S. Dinardo	SERCO/ESRIN
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#### **Ocean Circulation**

A Preliminary Arctic Ocean Mean Dynamic Topography using CryoSat & GOCE	S.F. Thomas	Centre for Polar Observation & Modelling
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#### **Land & Inland Water**

CRUCIAL - CryoSat+ Inland Water and Land	R.G. Smith	EAPRS Lab
Applications of CryoSat-2 SARin and LRM Modes for Lakes Monitoring	J.-F. Cretaux	LEGOS/CNES
CryoSat-2 SAR Mode over the Eastern Amazon Basin	S. Calmant (Presented by N. Bercher)	LEGOS/IRD

#### **Outreach and User Tools**

A Toolkit for CryoSat Investigations by the ESRIN EOP-SER Altimetry Team	S. Dinardo	SERCO/ESRIN
BRAT: The Basic Radar Altimetry User Toolbox for CryoSat Products	B. Lucas	DEIMOS/ESRIN