Monday, 14 June 2021		Author
13:30 -15:05 CEST	**Opening Session - Chaired by Tommaso Parrinello and Jerome Bouffard**	
13:30-13:35	Opening	Dr. T. Parrinello, CryoSat Mission Manager
13:35-13:45	ESA Welcome	Dr. T. Tolker-Nielsen, Acting D/EOP
13:45-14:05	The Importance of observing the Arctic for weather forecasting and climate monitoring	Dr. Florence Rabier, DG - ECMWF
14:05-14:25	The EU Space Programme for the Arctic	Michael Mann, EU Special Envoy for Arctic Matters
14:25-14:45	Ice sheets and sea level projections: challenges and opportunities	Dr. Sophie Nowicki, University of Buffalo
14:45-15:05	CryoSat-2 : a decade of polar altimetry	Prof. A. Shepherd, University of Leeds
15:05 - 15:30	**Coffee Break - Day 1 PM**	
15:30 - 17:15 CEST	**Sea ice #1: Thickness. Chairs: Sara Fleury, Henriette Skourup**	
15:30 - 15:55	Keynote: Sea ice in 3D: A decade of observations from CryoSat-2	Rachel Tilling
15:55 - 16:15	Advancements of Sea-Ice Thickness Climate Data Records by CryoSat-2	Stefan Hendricks
16:15 - 16:35	The Golden Era - Advances in Mapping Arctic Sea Ice Thickness by Combining CryoSat-2 and ICESat-2 Retrievals	Sinead Farrell
16:35 - 16:55	Dynamic and thermodynamic winter sea-ice growth in the Arctic	Robert Ricker
16:55 - 17:15	Winter Arctic Sea Ice Volume Budget Decomposition from Satellite Observations and Model Simulations over the CryoSat-2 period (2010-2020)	Michel Tsamados
17:15 - 19:00 CEST	**POSTER SESSION**	
	POSTER LIST	
TOPIC	**Sea Ice**	
10	A multi-epoch SARIN retracker suited for freeboard measurement	Pierre Fabry
11	Estimates of Arctic snow depth from ICESat-2 and CryoSat-2 freeboards	Ron Kwok
19	Sea Ice and Snow Interaction Revealed by Combined Retrieval of Sea Ice Thickness and Snow Depth with CryoSat-2 and SMOS	Shiming Xu
26	Sea Ice CCI+ - towards a 26 year time series of sea ice thickness from radar altimetry	Eero Rinne
45	The potential of Multi-Peak Retracking CryoSat-2 SARIn Waveforms over Arctic Sea Ice	Alessandro Di Bella
56	LeadS Detection with Fully-Focused SAR in Antarctica	Sergi Hernández
66	Comparing sea surface height anomalies from CryoSat-2 and ICESat-2 over the ice-covered oceans	Marco Bagnardi
72	Summer sea ice freeboard calculation using CryoSat-2	Geoffrey Dawson
101	Arctic NEMO. Observing and modelling the Arctic Ocean and Sea-Ice	Lars Stenseng
102	The impact of snow products on detecting trends in sea ice thickness during the CryoSat-2 era	Heidi Sallila
109	A decade of in situ observations between the North Pole and Fram Strait from the Ice-T (Ice Thickness) buoy: potential for satellite validation.	Frederic Vivier
115	Assimilating 2-day, Near-Real-Time CryoSat2 observations in the U.S. Navy Global Ocean Forecast System.	David Hebert
116	The Evolution of CryoSat2 Sea Ice Processing : Past, Present and Future.	David Brockley
117	Arctic Sea Ice Thickness and Sea Level Anomaly from CryoSat-2 and Physical Retracker	Sara Fleury
118	Winter Arctic Sea Ice Volume Budget Decomposition from Satellite Observations and Model Simulations over the CryoSat-2 period (2010-2020)	Michel Tsamados
119	Fully-Focused SAR Processing for Sea Ice Applications	Alejandro Egido
125	Dedicated Airborne Experiments to Validate Satellite Altimetry over Arctic Sea Ice: A Review	Sinead Louise Farrell
138	Can ice age be used to create a sea ice thickness proxy product?	Isolde Glissenaar

139	Exploring the role of the “Ice-Ocean governor” and mesoscale eddies in the equilibration of the Beaufort Gyre: lessons from observations.	Gianluca Meneghello
140	Sea Ice and snow thickness conditions during the 2018 North Greenland Polynya – A Study with CryoSat-2 and SMOS	Lu Zhou
143	A Bayesian approach towards daily pan-Arctic sea ice freeboard estimates from combined CryoSat-2 and Sentinel-3 satellite observations	William Gregory
144	Evaluation of CryoSat-2 sea-ice products in the light of the CS2/IS2 tandem phase opportunity	Antoine Laforge
146	Development of sea ice Risk Index Outcome in Barents and Kara seas derived from satellite altimetry and model reanalysis	Eero Rinne
151	Towards a Roadmap for Sea-Ice Thickness Product Inter-comparisons: Challenges and Opportunities	Renée Mie Fredensborg Hansen
152	Cryo2Ice Coincident Observations Explorer Demo	Martin Ewart
154	Towards long term sea-ice thickness series from altimetry over Antarctica	Florent Garnier

Tuesday, 15 June 2021		Author
09:00 - 10:40 CEST	**Sea ice #2: Snow/techniques. Chairs: Sinead Farrell, Robert Ricker**	
09:00 - 09:20	Incorporation of surface roughness and snow depth into CryoSat-2 sea ice thickness retrievals and assessment with ICESat-2	Nathan Kurtz
09:20 - 09:40	How do surface roughness and radar penetration affect pan-Arctic snow depths derived from multi-sensor altimetry? Physical waveform modelling applied to CryoSat-2 and AltiKa SARAL, with comparison to ICESat-2	Jack Landy
09:40 - 10:00	Assessment of Ka-Ku altimetric snow depth on sea ice product	Florent Garnier
10:00 - 10:20	The ESA CryoSat-2 Validation Experiment (CryoVEx) airborne sea ice freeboard campaigns in the Arctic and Antarctic	Henriette Skourup
10:20 - 10:40	Investigating Ku- and Ka-band radar penetration and scattering in an evolving snow pack during MOSAiC	Rosemary Willatt
10:40 - 11:00	**Coffee Break - Day 2 AM**	
11:00 - 12:45 CEST	**Ocean and Marine Gravity #1. Chairs: Mathilde Cancet, Michele Scagliola**	
11:00 - 11:25	Keynote: Ocean and Marine Gravity from Cryosat.	Ole Andersen
11:25 - 11:45	Coastal Altimetry from SARin CS2 data.	Pablo Garcia
11:45 - 12:05	Assessment of CryoSat-2 altimetry data using high-frequency radar for the study of surface coastal circulation	Roberto Mulero
12:05 - 12:25	How CryoSat changed altimetry forever	Walter Smith
12:25 - 12:45	On the Potential of Fully-Focused SAR Processing for Oceanography	Christopher Buchhaupt
12:45 - 14:00	**Lunch Break - Day 2**	
14:00 - 15:40 CEST	**Ocean and Marine Gravity #2. Chairs: Christine Gommenginger, Walter Smith**	
14:00 - 14:20	Improvement of the Bathymetry and Regional Tidal Modelling in the Arctic Ocean	Mathilde Cancet
14:20 - 14:40	Looking through Southern Ocean sea-ice: new insights into the ice-covered Southern Ocean circulation from multi-altimeter combination	Matthis Auger
14:40 - 15:00	Improved sea level from CryoSat-2 in the Polar Oceans	Stine Kildegaard Rose
15:00 - 15:20	Evaluation and scientific exploitation of CryoSat-2 ocean products for oceanographic studies	Chris Banks
15:20 - 15:40	Characterizing the Extent, Shape, and Location of the Beaufort Gyre in the Canadian Basin of the Arctic Ocean From Satellite Data Between 2003-2014	Camille Lique
15:40 - 16:00	**Coffee Break - Day 2 PM**	
16:00 - 17:45 CEST	**Greenland and Antartica Ice Sheets #1. Chairs: Veit Helm, Ines Otosaka**	
16:00 - 16:25	keynote: The Greenland and Antarctic ice sheets	Louise Sandberg Sørensen
16:25 - 16:45	Increased variability in Greenland seasonal melting from CryoSat-2 altimetry	Thomas Slater
16:45 - 17:05	Greenland ice sheet mass balance from radar altimetry.	Sebastian Simonsen
17:05 - 17:25	CryoSat can provide peripheral mass loss, basin run-off and even estimates of firn compaction around Greenland	Laurence Gray
17:25 - 17:45	Changes in Northwest Greenland Ice Sheet Elevation and Mass	Inès Otosaka
17:45 - 19:00 CEST	**POSTER SESSION**	
	POSTER LIST	
TOPIC	**Ocean and Marine Gravity**	
32	Developments in SAR Altimetry over Coastal and Open Ocean: A retrospective of developments in SAR altimetry processing and the improvements achieved through the SAMOSA and CP4O projects	David Cotton
34	Improved Retrieval Methods for Sentinel-3 SAR Altimetry over Coastal and Open Ocean and recommendations for implementation: ESA SCOOP Project Results	David Cotton
42	CryoSat-2 significant wave height in the Arctic Ocean derived using a semi-analytical model of Synthetic Aperture Radar 2011-2019	Harold Heorton
47	Contributions to Arctic Sea Level Change in the era of CryoSat-2	Carsten Ludwigsen
50	Satellite Altimetry and In Situ Observations of sea level and ground displacement: Estimating Relative and Absolute Sea Level Rise at Ny-Ålesund	Francesco De Biasio
74	Multi-altimeter combination for sea level retrieval in the ice covered Arctic Ocean	Pierre Prandi
87	CryoSat-2's contribution to the complete sea level records from the Polar Oceans	Stine Kildegaard Rose
89	Mean sea surface model of Baltic region from CryoSat-2 and multi-mission satellites: Baltic+SEAL project	Adili Abulaitijiang
92	Preparing for the DTU2020 global mean sea surface model	Adili Abulaitijiang

93	Comparison of high-resolution gravity recovery methods using the two-step retracker	Shengjun Zhang
94	Inversion of marine gravity anomalies in Beibu Gulf by comparing CryoSat-2 LRM and SAR measurements	Shengjun Zhang
98	Bathymetry of the Arctic Ocean predicted from marine gravity --- contribution from CryoSat-2	Adili Abulaitijiang
103	10 years of Cryosat-2 in DUACS Sea Level products	Yannice Faugere
113	Sea level in the Mediterranean and German coasts from SAR CryoSat-2 altimetry, tide gauges and GPS.	Luciana Fenoglio

Wednesday, 16 June 2021		Author
09:00 - 10:40 CEST	**Greenland and Antartica Ice Sheets #2. Chairs Mal McMillan, Angelika Humbert**	
09:00 - 09:20	Complex, evolving patterns of mass loss from Antarctica's largest glacier	Jonathan Bamber
09:40 - 10:00	Draining and Filling of an Interconnected Sub-glacial Lake Network in East Antarctica	Anna Hogg
10:00 - 10:20	Antarctic Peninsula mass trends from 2003 until present from a Bayesian hierarchical model approach	Stephen Chuter
10:20 - 10:20	Adaptation of the Snow Microwave Radiative Transfer model (SMRT) for altimetric applications in the Antarctic ice sheet	Ghislain Picard
10:40 - 11:00	**Coffee Break - Day 3 AM**	
11:00 - 12:55 CEST	**Glaciers, ice caps, iceshelves and icebergs. Chairs: Laurence Gray, Susheel Adusumilli, Anna Hogg, Bert Wouters**	
11:00 - 11:25	keynote: Advances in understanding Antarctic ice shelves using satellite altimetry	Helen Fricker
11:25 - 11:45	Combining Sentinel 1 and CryoSat-2 measurements to track icebergs	Anne Braakmann-Folgmann
11:45 - 12:10	keynote: Swath processing of CryoSat-2 for global monitoring of mountain glacier and ice caps	Noel Gourmelen
12:10 - 12:30	Present-Day Mountain Glacier Mass Balance Estimates	CK Shum
12:30 - 12:55	keynote: Contribution of the three modes of Cryosat to iceberg studies.	Jean Tournadre
12:55 - 14:00	**Lunch Break - Day 3**	
14:00 - 15:40 CEST	**10 Years of operations, synergies with EO missions #1. Chairs: Jerome Bouffard, Tania Casal**	
14:00 - 14:20	CryoSat: ESA's ice explorer mission. 10 years in space: status and future challenges	Tommaso Parrinello
14:20 - 14:40	Aging with grace: 10 years of CryoSat-2 flight operations	Giuseppe Albini
14:40 - 15:00	Quantifying Achievable Performance and Long Term Measurement Drift From 10 Years Of CryoSat-2 Data	Steven Baker and Michele Scagliola
15:00 - 15:20	CRISTAL: science objectives and status	Paolo Cipollini
15:20 - 15:40	The Ice, Cloud and Land Elevation Satellite – 2 (ICESat-2) Mission: Status and Update	Thomas Neumann
15:40 - 16:00	**Coffee Break - Day 3 PM**	
16:00 - 17:40 CEST	**The Future of Altimetry of the Cryosphere: Chairs Chris Rapley, Mark Drinkwater**	
16:00 - 16:15	AR6 - The Cryosphere in a Changing Climate - What shall we be focusing on?	Valérie Masson-Delmotte
16:15 - 16:30	On the vulnerability of Antarctica under an evolving climate	Angelika Humbert
16:30 - 16:45	Future directions in satellite altimetry of the cryosphere	Laurent Phalippou
16:45 - 17:00	A Vision of the Future Path of Ice Altimetry	Andrew Shepherd
17:00 - 17:40	Plenary Discussion	
17:40 - 19:00 CEST	**POSTER SESSION**	
	POSTER LIST	
TOPIC	**Greenland and Antartica Ice Sheets**	
41	The importance of slope correction for studying Greenland ice change using radar altimetry (CryoSat-2)	Katarzyna Sejan
67	The essential contribution of CryoSat-2 to the Antarctic mass balance question	Lin Gilbert
78	Using CryoSat-2 and ICESat-2 data to construct a summer DEM for the marginal areas of the Greenland ice sheet, and to estimate ice-sheet thickness along the PROMICE flux gates	Mai Winstrup
81	Enhancing the Record of Ice Sheet Surface Elevation Change by Combining CryoSat and Sentinel-3 Measurements.	Alan Muir
82	Mass loss from Northeast Greenland outlet glaciers from combined measurements of TanDEM-X and CryoSat-2	Lukas Krieger
97	CryoSat-2 SARIn mode over Antarctica: comparison to ICESat-2 and ice sheet elevation changes over the 2010's	Jeremie Aublanc
110	Multi mission elevation change rate estimates of CryoSat-2, Sentinel-3 and SARAL-Altika	Veit Helm
124	High-resolution mass changes of Greenland and Antarctica by CryoSat, GRACE, and GNSS uplift data	Rene Forsberg
145	CryoTEMPO EOLIS: Swath Elevation over Land Ice Altimetry Products	Jonathan Alford

150	Earth Observation for Surface Mass Balance: Assessing the feasibility of measuring ice sheet surface mass balance from space	Robert Wassink
TOPIC	**Glaciers, ice caps, iceshelves and icebergs**	
40	Global glacier trends from radar altimetry	Livia Jakob
52	Reviewing slope correction of altimetry data in the era of high-resolution DEMs.	David Brockley
100	Investigation of the added value of a varying coherence threshold for CryoSat-2 swath processing	Natalia Havelund
14	Sub-Annual Calving Front Migration, Area Change and Calving Rates from Swath Mode CryoSat-2 Altimetry, on Filchner-Ronne Ice Shelf, Antarctica	Jan Wuite
44	A new phase for CryoSat's next 10 years	Noel Gourmelen

Thursday, 17 June 2021		Author
09:00 - 10:40	**10 Years of operations, synergies with EO missions #2. Chairs: Monica Roca, Nathan Kurtz**	
09:00 - 09:20	A merged CryoSat-2 Sentinel-3 freeboard product, its sensitivity to weather events, and what it can tell us about Ku-band radar penetration	Isobel Lawrence
09:20 - 09:40	Multi-band altimetry of the cryosphere: status and outlook	Paolo Cipollini
09:40 - 10:00	SIRAL: from the early design, to 10 years of in-flight monitoring and its contribution for future altimeter developments	Laurent Rey
10:00 - 10:20	CryoSat long-term ocean data analysis and validation	Marc Naeije
10:20 - 10:20	Exploring Earth's magnetic field and its environment with Cryosat-2	Nils Olsen
10:40 - 11:00	**Coffee Break - Day 4 AM**	
11:00 - 12:40	**Hydrology. Chairs: Jerome Benveniste, Karina Nielsen**	
11:00 - 11:25	The role of Cryosat-2 in river level monitoring from space	Karina Nielsen
11:25 - 11:45	Contributions of Cryosat-2 to Hydrological Applications: How DAHITI benefits from 10 years of LRM and SAR data from a long-repeat orbit mission	Christian Schwatke
11:45 - 12:05	Cryosat-2 SARIN over inland waters: Analysis of phase difference for target detection and range correction	Philip Moore
12:50 - 12:25	CryoSat-2 Altimetry over Rivers	Luciana Fenoglio
12:25 - 12:45	Climate-driven variations in lake level - Decadal monitoring of Tibetan lakes from CryoSat-2	Liguang Jiang
12:40 - 14:00	**Lunch Break - Day 4**	
14:00 - 15:45 CEST	**POSTER SESSION**	
15:45 - 16:00	**Coffee Break - Day 4 PM**	
16:00 - 17:00 CEST	**Session Chairs wrap-up and conclusion. Chairs: T. Parrinello, A. Shepherd**	

	POSTER LIST	
TOPIC	**10 Years of operations, synergies with EO missions**	
16	CryoSat SIRAL: calibration and achievable performance after 10 years of operations	Michele Scagliola
17	CryoSat SAR/SARin Level1b products: expected quality improvements for BaselineE	Michele Scagliola
20	11 Years of CryoSat Quality Control: Evolution and Current Status of the Ice Processors	Erica Webb
21	11 Years of CryoSat Quality Control: Evolution and Current Status of the Ocean Processors	Erica Webb
23	SIRAL: from the early design, to 10 years of in-flight monitoring and its contribution for future altimeter developments	Laurent Rey
25	Combining Fully Focused and Swath Processing for Glacier applications	Albert Garcia-Mondejar
29	CryoSat absolute mis-pointing estimation with altimeter data	Marco Fornari
36	SAR, SARin, RDSAR and FF-SAR Altimetry Processing on Demand for Cryosat-2 and Sentinel-3 at ESA G-POD	Marco Restano
37	The BRAT and GUT Couple: Broadview Radar Altimetry and GOCE User Toolboxes	Marco Restano
38	10 years of CryoSat-2 range, datation and interferometer calibration with Transponder	Adrian Flores De La Cruz
39	CryoSat 10 years of operations: data products status and evolutions	Marco Meloni
46	CryoSat-2's WTC based on observations: the added benefit of the GPD+ ADF	Clara Lázaro
49	CryoSat Baseline-D Reprocessing Campaign	Manuele Martini
53	Can ICESat-2 help compensate for changes in radar altimetry retrievals in response to melt events?	Heiki Lõhmus
79	Polar Monitoring project: consolidation of the future CRISTAL polar mission requirements and performances	Jeremie Aublanc

85	Use of CryoSat Data to Help Frame the Climate Change Dialogue Between Indigenous Peoples and Local Scientists in Siberia	Tony Milligan
126	Operational implementation of the CryoSat-2 orbital change	Javier Sanchez Martin
147	The Aresys FF-SAR Service for Cryosat-2 at ESA GPOD	Marco Restano
148	Cryo-TEMPO: A new era of CryoSat-2 Thematic Products over Ice, Ocean and Inland Water	Malcolm McMillan
149	Ku-band Altimeter Waveforms Simulated with the Snow Microwave Radiative Transfer (SMRT) model	Mel Sandells
153	CryoSURF: Using deep learning with CryoSat radar altimetry to adjust elevations and map surface penetration	Alex Horton
155	Multi-band altimetry of the cryosphere: status and outlook	Paolo Cipollini
160	Sentinel-3 Altimetry Thematic Data Product for cryosphere & benefits of the Sentinel-3 Validation Team	Pierre Femenias
TOPIC	**Hydrology**	
58	Oceanographic investigations along an east-west oriented coast based on along-track CryoSat-2 SAR altimetry	Erwan Garel
75	Evaluation of CryoSat-2 SAR/SARIn and ICESat-2 water level determination in the Yangtze River	Heidi Ranndal
84	CryoSat-2 SAR and SARin Inland Water Heights from the CRUCIAL project	Marco Restano
129	Monitoring Solid Earth Deformation Using Satellite Altimetry	CK Shum
132	Repeat Subglacial Lake Drainage and Filling Beneath Thwaites Glacier, West-Antarctic Ice Sheet	George Malczyk
135	Improving SAR Altimeter processing over the coastal zone and inland waters - the ESA HYDROCOASTAL project	David Cotton
158	ICC-ER a new robust empirical retracker for non homogeneous surfaces	Pierre Fabry