



**Monday June 2<sup>nd</sup>: Morning  
Conference Room**

**8:10 Bus departure from Brest\*\* to Ifremer Institute**

**8:30 Registration (Hall)**

**Introductory Talks**

**Chair: Abderrahim Bentamy**

9:30 Words from the local host  
Abderrahim Bentamy

9:35 Words from the Co-Director IFREMER/Brest center  
Nicole Devauchelle

9:45 Introduction from the organizing committee  
Mark Bourassa (FSU)

9:50 CEOS OSVW-Virtual Constellation Update  
Paul Chang (NOAA/NESDIS), Julia Figa, and B.S. Gohil

10:05 Status overview of the European scatterometer activities  
Julia Figa Saldana (EUMETSAT), and K. Scipal (ESA/ESTEC)

10:20 Update on QuikSCAT, RapidSCAT, and the OVWST re-competition  
Eric Lindstrom (NASA HQ)

10:35 Discussion (10 minutes)

**10:45 Break & Poster Viewing (30 minutes) (Hall)**

**Atmosphere and Ocean Coupling**

**Chair: Mark Bourassa**

11:15 The atmospheric response to weak SST fronts  
Niklas Schneider (International Pacific Research Center, University of Hawaii) and Bo Qiu (Department of Oceanography, University of Hawaii)

11:30 Surface Flux Modification by Wind Response to SSTs  
Mark Bourassa (Florida State University) and John Steffen

11:45 Spatial variances of wind fields and their relation to second-order structure functions and spectra  
Jur Vogelzang (KNMI), Gregory King, and Ad Stoffelen

12:00 Near-surface wind-current coupling, identified in satellite and in situ observations  
Nikolai Maximenko (IPRC, University of Hawaii),

12:15 Can GRACE-constrained ocean circulation estimates be used to evaluate and adjust QuikSCAT wind stress retrievals? Dimitris Menemenlis (Jet Propulsion Laboratory), Hong Zhang, David Moroni, and Carmen Boening

12:30 Discussion (30 minutes)

**13:00 Lunch (60 minutes) at IFREMER**

*\*\* Brest Train Station*



**Monday June 2<sup>nd</sup>: Afternoon  
Conference Room**

**14:00 Breakout Sessions for Working Group on Ocean Surface Stress  
(other session cancelled)**

**Stress**

**Chair: Jim Edson**

- 14:00 Overview of working group
- 14:15 Effects of cloud snow in climate models on ocean surface wind stress and SST in the Pacific sector  
Tong Lee (Jet Propulsion Laboratory), J.-L. Frank Li, W.-L. Lee, D. E. Waliser, Tong Lee, Justin P. Stachnik, Eric Fetzer, and Carmen Boening
- 14:30 New Applications of Scatterometry  
MM Ali (NRSC), Mark Bourassa, David Long, and Jocelyn Elya
- 14:45 Retrieving Hurricane Scale Wind and Stress from scatterometers  
W. Timothy Liu (Jet Propulsion Laboratory), Wenqing Tang, and Xiaosu Xie
- 15:00 Discussion (30 minutes)

**15:30 Break and Poster Viewing (30 minutes) (Hall)**

**Oceanographic Applications**

**Co-chairs: Tony Lee and Bruno Blanke**

- 16:00 Wind-Driven Motions of the Upper Ocean Mixed Layer  
Kathleen Dohan (Earth and Space Research)
- 16:15 Wind-induced Upwelling in the Kerguelen Plateau Region  
Sarah T. Gille, Magdalena Carranza, Rémi Cambra, and Rosemary Morrow
- 16:30 Covariability Of Equatorial Winds And Sea Surface Height  
Theodore Durland (CEOAS, Oregon State University), J. Thomas Farrar, Dudley B. Chelton, and Michael G. Schlax
- 16:45 Uncertainty in Ocean Surface Winds over the Nordic Seas  
Dmitry Dukhovskoy (FSU) and Mark Bourassa
- 17:00 Wind Relaxations in the California Current Upwelling System  
Melanie R. Fewings, Libe Washburn, Clive E. Dorman, Christopher Gotschalk, Kevin S. Brown<sup>1</sup>, Ke Chen, and John Bane
- 17:15 The influence of non-wind based parameters on estimating the active and total whitecap coverage globally  
Aaron Paget (Brigham Young University) and Mark A. Bourassa
- 17:30 Statistical Emulation of High Resolution SAR Wind fields from low-resolution model predictions  
Liyun He Guelton (IFREMER), Bertrand Chapron, and Ronan Fablet
- 17:45 Discussion (30 minutes)
- 18:15 Close for the day

**18:30 Bus departure for Brest City**



**Tuesday June 3rd: Morning  
Conference Room**

**8:10 Bus departure from Brest to Ifremer Institute**

**8:30 Meeting space open (Hall)**

9:00 Summary from Breakout Session for Working Group on Ocean Surface Stress

**Ice Applications**

**Chair: Julia Figa**

9:15 Long-Term Sea Ice Monitoring With Scatterometers at IFREMER/CERSAT  
Fanny Girard-Arduin (IFREMER)

**Meteorological Applications**

**Co-chairs: Marcos Portabella and Ralph Milliff**

9:30 Improvements in ambiguity removal of scatterometer winds  
Jur Vogelzang (KNMI), Ad Stoffelen, Wenming Lin, and Marcos Portabella

9:45 Satellite estimates of time-averaged surface wind divergence and vorticity in rain-free and all-weather conditions  
Larry O'Neill (Oregon State University), Ted Durland, Tracy Haack, and Dudley Chelton

10:00 Impact of East Asian Winter and Australian Summer Monsoons on the Enhanced Surface Westerlies over the Western Tropical Pacific Ocean Preceding the El Nino Onset  
Yangxing Zheng (COAPS, Florida State University), Renhe Zhang, and Mark A. Bourassa

10:15 Exploring the relationship between surface wind convergence and convective rainfall in the tropics  
Thomas Kilpatrick (Scripps Institution of Oceanography) and Shang-Ping Xie

10:30 Deuterated Water and Surface Vector Winds in a Madden-Julian Oscillation Event  
Ralph Milliff (CIRES, University of Colorado), Lesley L. Smith, David C. Noone, and Max Berkelhammer

**10:45 Break and Poster Viewing (30 Minutes) (Hall)**

11:15 Assimilation of Scatterometer Winds At METEO-FRANCE  
Payan Christophe (CNRM and Game, Météo France and CNRS)

11:30 Scatterometer Winds At ECMWF: Operational Status And Research Activities  
Giovanna De Chiara (ECMWF), Jean-Raymond Bidlot, Stephen J. English, and Peter A.E.M. Janssen

11:45 Scatterometer Wind Assimilation at the Met Office  
James Cotton (Met Office)

12:00 Scatterometer Utilization in JMA's global numerical weather prediction (NWP) system  
Masami Moriya (Japan Meteorological Agency)

12:15 Assimilation of scatterometer winds in HARMONIE for wave and surge forecasting near the coast  
Ad Stoffelen (KNMI) and Gert-Jan Marseille

12:30 Discussion (30 minutes)

**13:00 Lunch (60 minutes)**



## Tuesday June 3rd: Afternoon

### 14:00 - 15:30 Breakout Sessions for

[Working Group on Climate \(Conference Room\)](#)

[Working Group on Coastal Applications \(Ocean Room\)](#)

For schedule of talks see next page →

### 15:30 Break and Poster Viewing (30 minutes) (Hall)

### Conference Room, 16:00 – 18:15

#### New Products and Applications

Co-chairs: Julia Figa and Jochen Horstmann

- 16:00 Analysis of the C-band spaceborne scatterometers thermal noise  
Anis Elyouncha (Royal Military Academy) and Xavier Neyt
- 16:15 Analysis of Turbulent Flux Quality  
Abderrahim Bentamy (IFREMER), S. Grodsky; W. Bruch, B. Blanke, F. Desbiolles, K. Katsaros, A. Mestas-Nuñez, and R. Pinker
- 16:30 Retrieving Surface Wind Direction from Neural-Net Wind Speed Retrievals in Tropical Cyclones  
Ralph Foster (University of Washington) and Jerome Patoux
- 16:45 Scatterometer and NWP model data in regional seas  
Stefano Zecchetto (National Research Council of Italy) and C. Accadia
- 17:00 Multi-Scatterometer Hurricane Winds: Optimized Tropical Cyclone Winds from ASCAT, OceanSAT-2, and QuikSCAT  
Bryan Stiles (Jet Propulsion Laboratory), Alex G. Fore, W. Lee Poulsen, Svetla Hristova-Veleva, and Michael J. Brennan
- 17:15 Measurements of Air-Sea Interaction from the HY-2A Scatterometer  
Dudley Chelton (Oregon State University), Qingtao Song, Larry W. O'Neill, Marcos Portabella, Wenming Lin, and Ad Stoffelen
- 17:30 Wind Retrieval from Synthetic Aperture Radar Operating at Cross Polarization  
Jochen Horstmann (Helmholtz Zentrum Geesthacht), S. Falchetti, C. Wackerman, M. Caruso and H. Graber
- 17:45 Discussion (30 minutes)

### 18:15 Close for day

### 19:00 Buffet Dinner at IFREMER

### 21:30 Bus Departure for Brest City



## Tuesday June 3rd: Afternoon Working Groups

### Climate (Conference Room)

Chair: Frank Wentz and Ad Stoffelen

- 14:00 Overview of working group
- 14:15 Standards in the evaluation of scatterometer products  
Ad Stoffelen (KNMI)
- 14:30 ASCAT and SeaWinds Ocean Surface Vector Winds Along the Equator  
David Halpern (Jet Propulsion Laboratory) and Lucrezia Ricciardulli
- 14:45 Climate signals in the ocean surface winds: Using QuikSCAT, ASCAT, and OSCAT to detect trends in the Hadley cell width and intensity and to study their intra-seasonal, seasonal and diurnal variability  
Svetla Hristova-Veleva (JPL), Ziad Haddad, Ernesto Rodriguez, and Bryan Stiles
- 15:00 Discussion (30 minutes)

### Coastal Applications (Ocean Room)

Co-chairs: Melanie Fewings and Steve Morey

- 14:00 Overview of working group
- 14:15 Upwelling events at the western African coast related to synoptic atmospheric structures: An analysis with satellite observations  
Fabien Desbiolles (LOS), B. Blanke, and A. Bentamy
- 14:30 Discovering a Decade of Coastal Winds From Scatterometers  
Bryan Stiles (Jet Propulsion Laboratory), Alex G. Fore, P. Ted Strub, Corinne James, Michelle Gierarch, and Sermsak Jaruwatanadilok
- 14:45 Understanding variability of global coastal upwelling using satellite scatterometer winds  
Steven Morey (Florida State University)
- 15:00 Discussion (15 minutes)

**15:30 Break and Poster Viewing (30 minutes) (Hall)**



## Wednesday June 4th: Morning Conference Room

**8:10 Bus departure from Brest to Ifremer Institute**

**8:30 Meeting space open (Hall)**

9:00 Summary from Breakout Session for [Working Group on Coastal Applications](#)

9:15 Summary from Breakout Session for [Working Group on Climate](#)

### Current and Future Ocean Vector Wind Mission Updates

**Co-chairs: Ernesto Rodriguez and Klaus Scipal**

9:30 CFOSAT (Chinese-French Oceanic SATellite): an innovative mission combining surface ocean wind and wave measurements from Ku-Band scatterometry  
Daniele Hauser (LATMOS/CNRS-UVSQ), Liu Jianqiang, Dong Xialong, Zhu Di, Tison C., Lambin J., Amiot, T., Castillan P., Mouche A., Chapron B., Arduin F., Lefèvre JM., Aouf L., and Mahfouf JF

9:45 Calibration of HY-2A Satellite Scatterometer with Ocean and Considerations of Calibration of CFOSAT Scatterometer  
Xiaolong Dong (CAS Key Laboratory of Microwave Remote Sensing, National Space Science Center, CAS), Jintai Zhu, Risheng Yun, and Di Zhu

10:00 Evaluation of the HY-2A scatterometer wind quality  
Wenming Lin (Institut de Ciencies del Mare CSIC), Marcos Portabella, Ad Stoffelen, Anton Verhoef, Antonio Turiel, Qingtao Song, Xingwei Jiang, and Dudley B. Chelton

10:15 Global Change Observation Mission (GCOM) (invited)  
Haruhisa Shimoda (JAXA)

10:30 Progress Towards the Ku/Ka-band Scatterometer Missions  
Mark Bourassa (Florida State University), Robert Gaston, David G. Long, Nikolai Maximenko, Ernesto Rodriguez, Frank Wentz, Shang-Ping Xie, and Dudley Chelton

10:45 DopplerScat: A Pencil-Beam Scatterometer and Surface Current Instrument  
Ernesto Rodriguez (Jet Propulsion Laboratory, California Institute of Technology), M.M. Flexas, D. Menemenlis, D. Perkovic-Martin, and A. F. Thompson

**11:00 Break and poster viewing (30 minutes) (Hall)**

11:30 CYGNSS Mission Update  
Chris Ruf (AOSS/University of Michigan), Robert Atlas, Paul Chang, Maria Paola Clarizia, Zorana Jelenak, Sharan Majumdar, and Aaron Ridley

11:45 Two-Look Polarimetric (2LP) Microwave Radiometers for Ocean Vector Wind Retrieval  
Frank Wentz (Remote Sensing Systems), Kyle Hilburn. and Thomas Meissner

12:00 Aquarius Wind Speed Retrievals and Implications for SMAP Ocean Vector Winds  
Alexander Fore (Jet Propulsion Laboratory), Simon Yueh, Wenqing Tang, Julian Chaubell, Gregory Neumann, Akiko Hayashi, and Adam Freedman





- 12:15 The METOP-SG Satellites & the SCA Radar  
Franco Fois (ESA) and John Julian William Wilson (EUMETSAT), C.C.Lin, M. Loiselet, C. Anderson, F. Ticconi  
K.Scipal, A. Stoffelen, and J. Figa
- 12:30 RapidScat  
Ernesto Rodriguez (JPL), B. Stiles, A. Fore, D. Perkovic-Martin, S. Durden, and S. Boland
- 12:45 Discussion (15 minutes)
- 13:00 Lunch (60 minutes)**

### Wednesday June 4th: Afternoon Conference Room

#### Climate Data Record Development and Analysis Co-chairs: David Halpern and Frank Wentz

- 14:00 Trends in 15 years (1993-2007) of satellite-derived oceanic evaporation  
Alberto Mestas-Nunez (NSF), Frank Kelly, Abderrahim Bentamy, and Kristina Katsaros
- 14:15 Assessment of the impact of large sub-cell wind variability on ASCAT wind data quality  
Marcos Portabella (Institut de Ciencies del Mar (ICM-CSIC)), Wenming Lin, Ad Stoffelen, Antonio Turiel, and  
Anton Verhoef
- 14:30 Field assessment of ocean wind stress derived using active and passive microwave sensors  
Doug Vandemark (UNH/EOS), James Edson, Marc Emond, and Bertrand Chapron
- 14:45 Progress and Future Plans on an Ocean Vector Wind Climate Record  
Lucrezia Ricciardulli (Remote Sensing Systems) and Frank Wentz
- 15:00 Climate data records from OSI SAF scatterometer winds  
Anton Verhoef (KNMI), J. de Kloe, J. Verspeek, J. Vogelzang, and A. Stoffelen
- 15:15 Break and poster viewing (30 minutes) (Hall)**
- 15:45 A High-Resolution Ocean-Surface Vector Wind Analysis (1987 onward) Merged from Satellite Scatterometers  
and Microwave Radiometers: Methodology, Approach, Challenges, and Uncertainty Estimation  
Lisan Yu (Woods Hole Oceanographic Institution)
- 16:00 Utilization of multi-satellite data for construction of high-temporal resolution data and high-accuracy daily-mean  
data  
Masahisa Kubota (Tokai University), Atsushi Okuro, Shin'ichiro Kako
- 16:15 Discussion (30 minutes)
- 16:45 Meeting Wrap up
- 17:15 Close of meeting**
- 17:15 Transportation will be organized for airport or Brest City**



## Posters (Hall Conference Room)

### Atmosphere and Ocean Coupling

Surface Curl and Ekman Upwelling Modification by Wind Response to SSTs  
Mark Bourassa (Florida State University) and Paul J. Hughes

Coupled surface winds and ocean diurnal variability using WRF  
Rachel Weihs (Center for Ocean-Atmospheric Prediction Studies, Florida State University) and Mark Bourassa

The Influence of Small Scale SST Gradients on Tropical Cyclone Development  
Russell Glazer (Florida State University - COAPS), Mark Bourassa, and Robert Hart

Second-order structure function analysis of SeaWinds and ASCAT winds over the Tropical Pacific  
Gregory King (Gulbenkian Institute of Science), Jur Vogelzang, and Ad Stoffelen

Upscale and downscale energy transfer over the tropical Pacific revealed by scatterometer winds  
Gregory King (Gulbenkian Institute of Science), Jur Vogelzang, and Ad Stoffelen

Comparison of ASCAT and SeaWinds Velocity Difference PDFs  
Gregory P. King, Jur Vogelzang, and Ad Stoffelen

Atmospheric forcing data sets to drive eddy-resolving global ocean general circulation models  
Raphael Dussin, Bernard Barnier, and Anne Marie Treguier

### Current and Future Ocean Vector Wind Mission Updates

The CYGNSS Mission Level 2 Wind Speed Retrieval Algorithm  
Maria-Paola Clarizia (University of Michigan), Christopher Ruf, Andrew O'Brien, and Scott Gleason

The swell impact on HY-2 SCAT wind product quality  
He Wang (National Ocean Technology Center)

CFOSAT Scatterometer Doppler processing and Data Product Development  
Risheng Yun (Key Laboratory of Microwave Remote Sensing (MIRS,CAS),Center for Space Science and Applied Research(CSSAR,CAS),Chinese Academy of Sciences), Xiaolong Dong, Di Zhu, and Xinou Xu

An evaluation of simulated CYGNSS winds in tropical cyclone conditions  
Faozi Said (NOAA), Seubson Soisuvann, Zorana Jelenak, and Paul S. Chang

### New Products and Applications

Improved ASCAT and OSCAT Spatial Response Functions for Enhanced Resolution Processing"  
David G. Long (BYU), Richard Lindsley, Nathan Madsen, and Aaron Paget

Tropical Cyclone Winds Validation from the OSCAT Neural Network Winds  
Seubson Soisuvann, Zorana Jelenak, Suleiman Alsweiss, and Paul Chang

Estimation of Sea Surface Rainrate from SeaWinds Data Using Neural Network Methods  
David E. Weissman, Simona Doboli, and Anthony Esposito





## Waves, Currents, and Ice

Wave and Wind Direction Effects on SFMR Brightness Temperatures  
Heather Holbach (FSU COAPS), Eric Uhlhorn, and Mark Bourassa

## Meteorological Applications

Scatterometer High Wind Observations  
Zorana Jelenak (NOAA/NESDIS/STAR-UCAR), Joseph Siekiewicz, Suleiman Alsweiss, and Paul S. Chang

GNSS-Reflectometry: A Cost-Effective Solution for Global Ocean Winds  
Foti G., Gommenginger C., Robertson C., Shaw A.

## Oceanographic Applications

The eSurge-Venice project: how scatterometer data can improve the storm surge forecasting in the Gulf of Venice  
Stefano Zecchetto (National Research Council of Italy), F. De Biasio, A. della Valle, G. Umgiesser, M. Bajo, S. Vignudelli, and C. Donlon

An Analytical Model for the Cross-Polar Scattering of Microwave Radiation from Ocean  
Franco Fois (TUDelft), P. Hoogeboom (TUDelft), F. Le Chevalier (TUDelft), and A. Stoffelen (KNMI)

Coastal Winds over the Patagonia Shelf  
Paul Strub (Oregon State University) and Corinne James

## Climate Data Record Development and Analysis

Towards ASCAT Backscatter Correction in Rain  
Wenming Lin (Institut de Ciencies del Mare CSIC), Marcos Portabella, Ad Stoffelen, and Anton Verhoef

An analysis of the data quality and long term trends in the reprocessed radar backscatter from ASCAT-A  
Craig Anderson (EUMETSAT), J Figa-Saldaña, R Huckle, JJW Wilson, F Ticconi, J Miller, C Duff, and H Bauch

## Special Topics

New Ocean Wind and Scatterometry Datasets and Interoperability Services at the NASA PO.DAAC  
David Moroni (NASA/JPL)

Observations of urban land targets using QuikSCAT L1B sigma0 data  
Aaron Paget (Brigham Young University) and David G. Long