

Programme ESA-SOLAS-EGU EO4OcAtm-2014

| Day 1 - Tuesday, October 28, 2014 | | | | |
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| Welcome and Introduction | | | | |
| 09:30 | 10:00 | | Welcome and conference objectives | ESA, SOLAS and EGU |
| 10:00 | 10:30 | | The ESA satellite missions: new opportunities to monitor ocean-atmosphere interactions from space | C. Donlon, ESA |
| 10:30 | 11:00 | | SOLAS into the Future: Designing the next phase of the Surface Ocean-Lower Atmosphere Study | C. Garbe, University of Heidelberg |
| 11:00 | 11:30 | | Ocean-Atmosphere Fluxes: Challenges and Opportunities | B. Ward, NUI Galway |
| 11:30 | 11:50 | | Coffee Break | |
| Session 1 - Novel EO missions - Chairpersons: C. Donlon, ESA, and B. Chapron, Ifremer | | | | |
| 11:50 | 12:10 | 68637 | Wavemill: a new mission for high-resolution mapping of total ocean surface current vectors | C. Gommenginger, <i>National Oceanography Centre</i> (presented by B. Chapron, Ifremer) |
| 12:10 | 12:30 | 70640 | The Ocean Surface Current Mission | B. Richards, <i>Airbus Defence and Space</i> (presented by B. Dobke, <i>Airbus Defence and Space</i>) |
| 12:30 | 12:50 | 67896 | CFOSAT (China France Oceanographic Satellite): Innovative Observations to Study Air/Sea Interactions | D. Hauser, <i>CNRS</i> (presented by A. Mouche, Ifremer) |
| 12:50 | 13:10 | 68275 | A Ku-Band ATI SAR Mission for Total Ocean Surface Current Vector Retrieval: Challenges, Concept, and Error Analysis. | F. Lopez-Dekker, <i>German Aerospace Center (DLR)</i> |
| 13:10 | 13:30 | 68638 | Improved understanding of ocean phytoplankton dynamics by means of chlorophyll fluorescence with the FLEX/Sentinel-3 tandem mission" | J. Moreno, <i>University of Valencia</i> (presented by A. Ruiz, <i>University of Valencia</i>) |
| 13:30 | 14:30 | | Lunch | |
| Session 2 - GHG Fluxes (I) - Chairpersons: P. Land, PML, and J. Shutler, PML | | | | |
| 14:30 | 14:50 | 68133 | The Surface Ocean CO2 Atlas (SOCAT) Enables Detection of Changes in the Ocean Carbon Sink | D. Bakker, <i>University of East Anglia</i> |
| 14:50 | 15:10 | 68166 | Air-sea Gas Flux Climatology for the Baltic Sea | A. Rutgersson, <i>Uppsala University</i> (presented by G. Parard, <i>Uppsala University</i>) |
| 15:10 | 15:30 | 68089 | Operational Monitoring of Trace Gases over the Mediterranean Sea | G. Grieco, <i>Agenzia Spaziale Italiana</i> |
| 15:30 | 15:50 | 68212 | Direct Air/Sea Flux Measurements of Dimethylsulfide during an Intense Southern Ocean Algal Bloom: Flux Footprint and Wave Effects | T. Bell, <i>Plymouth Marine Laboratory</i> (presented by M. Yang, <i>Plymouth Marine Laboratory</i>) |
| 15:50 | 16:10 | 68397 | Linking Surfactant Associated Bacteria on the Sea Surface and in the Near Surface Layer of the Ocean to Satellite Imagery | B. Hamilton, <i>Nova Southeastern University</i> |
| 16:10 | 16:30 | | Coffee Break | |
| Session 2 - GHG Fluxes (II) - Chairpersons: D. Bakker, UEA, and R. Wanninkhof, NOAA | | | | |
| 16:30 | 16:50 | 68249 | Towards better Air-Sea Gas Fluxes: Achievements of the ESA OceanFlux Greenhouse Gases Project | P. Land, <i>Plymouth Marine Laboratory</i> (presented by J. Shutler, <i>Plymouth Marine Laboratory</i>) |
| 16:50 | 17:10 | 68357 | Validation of Inferred Super-Resolution Ocean pCO2 and Air-Sea CO2 Fluxes with in Situ and Remote Sensing Data | H. Yahia, <i>INRIA</i> (presented by I. Hernandez-Carrasco, <i>LEGOS</i>) |
| 17:10 | 17:30 | 68224 | The Air-Sea Gas Transfer Velocity - Approaching it from Multiple Angles | M. Yang, <i>Plymouth Marine Laboratory</i> |
| 17:30 | 17:50 | 68306 | New Insights of pCO2 Variability in the Tropical Pacific Ocean using SMOS Salinity | C. W. Brown, <i>LOCEAN</i> |
| 17:50 | 18:10 | | Crowd-sourcing climatologies and the big experiment | J. Shutler, <i>Plymouth Marine Laboratory</i> |
| 18:10 | 18:30 | | Round Table: Novel EO missions – Moderators: C. Donlon, ESA, and B. Chapron, Ifremer | |
| 18:30 | 19:30 | | Poster session and cocktail | |
| Day 2 - Wednesday, October 29, 2014 | | | | |
| 08:50 | 09:20 | | Wake-up keynote: Ocean-wide atmosphere-ocean CO2 fluxes from in-situ and remote sensing data, and constraints on the global carbon cycle | A. Watson, <i>University of Exeter</i> |
| Session 3 - Ocean/Atmosphere Interactions at High Latitudes - Chairpersons: J.P. Burrows, University of Bremen, and J. Yackel, University of Calgary | | | | |
| 09:20 | 09:40 | 73674 | Effects of ice floes and leads on skin sea surface temperature, mixing and gas transfer in the marginal ice zone | C. Zappa, <i>Columbia University</i> |
| 09:40 | 10:00 | 68679 | Estimating surface-atmosphere physical and biogeochemical fluxes through ocean-sea ice-atmosphere interface using time series C-band SAR | D. Barber, <i>University of Manitoba</i> (presented by J. Yackel, <i>University of Calgary</i>) |
| 10:00 | 10:20 | 70626 | Observing the Anthropocene from Space: Marine Boundary Layer Ocean Ice Feedback | J.P. Burrows, <i>University of Bremen</i> |
| 10:20 | 10:40 | 70660 | Calcifying Plankton and their Modulation of the North Atlantic, Sub-Arctic and European Shelf-Sea Sinks of Atmospheric Carbon Dioxide from Satellite Earth Observation | P. Land, <i>Plymouth Marine Laboratory</i> |
| 10:40 | 11:00 | | Direct Eddy Covariance CO2 Flux Measurements during the Southern Ocean Aerosol Production Study | S. Landwehr, <i>NUI Galway</i> |
| 11:00 | 11:20 | | Coffee Break | |
| Session 4 - Heat and Freshwater fluxes (I) - Chairpersons: P. Minnett, University of Miami, and C. Clayson, WHOI | | | | |
| 11:20 | 11:40 | 70915 | Ship-board radiometric measurements of the air-sea temperature difference | P. Minnett, <i>University of Miami</i> |
| 11:40 | 12:00 | 68157 | Satellite-Derived Near-Surface Air Temperature and Humidity: Recent Progress and New Validation | G. Wick, <i>NOAA ESRL</i> |
| 12:00 | 12:20 | 68329 | A new Diurnally Adjusted High Resolution Sea Surface Temperature Analysis | A. Harris, <i>University of Maryland</i> |
| 12:20 | 12:40 | 68229 | Modelling the Diurnal Variability of SST and its Vertical Extent | I. Karagali, <i>DTU Wind Energy</i> |
| 12:40 | 13:00 | 70873 | SST diurnal cycle and heat budget estimates over the Mediterranean Sea | S. Marullo, <i>ENEA</i> |
| 13:00 | 14:30 | | Poster aperitif and Lunch | |
| Session 4 - Heat and Freshwater fluxes (II) - Chairpersons: A. Soloviev, Nova Southeastern University, and N. Reul, Ifremer | | | | |
| 14:30 | 14:50 | 71054 | Dynamics of the Sea Surface Temperature Extrema on a Global Scale Using Satellite Measurements | G. Vysotskaya, <i>Institute of Computational Modelling of SBRAS</i> |
| 14:50 | 15:10 | 68414 | Air-sea flux distributions from satellite and models across the global oceans | C. Clayson, <i>Woods Hole Oceanographic Institution</i> |
| 15:10 | 15:30 | 68390 | Sea surface temperature and salinity under low wind speed conditions | A. Soloviev, <i>Nova Southeastern University</i> |
| 15:30 | 15:50 | 68118 | Sea Surface Salinity under Rain Cells: SMOS Satellite and In-Situ Drifters Observations | J. Boutin, <i>CNRS</i> |
| 15:50 | 16:10 | 67996 | Diurnal Variations in Near-Surface Salinity | K. Drushka, <i>Scripps Institution of Oceanography</i> |
| 16:10 | 16:30 | | Coffee Break | |
| Session 4 - Heat and Freshwater fluxes (III) - Chairpersons: B. Ward, NUI Galway, and J. Boutin, CNRS | | | | |
| 16:30 | 16:50 | 68623 | Diurnal evolution of turbulence in the ocean surface boundary layer | G. Sutherland, <i>NUI Galway</i> |
| 16:50 | 17:10 | 68034 | Assessing the Impact of Air-Sea Interactions on Tropical Convection at Intraseasonal Timescales | C. DeMott, <i>Colorado State University</i> |
| 17:10 | 17:30 | 68285 | Observing Deep Convection from Space : a Multi Sensor Approach | M. Herrmann, <i>LEGOS / IRD</i> |
| 17:30 | 17:50 | 68675 | Water mass formation in the North Atlantic as seen by SMOS and OSTIA | M. Klockmann, <i>Max Planck Institute for Meteorology</i> |

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| 17:50 | 18:10 | 68235 | Severe Marine Weather Studies using SMOS L-Band Sensor Data and Multi-Sensor Synergies | N. Reul, <i>Ifremer</i> |
| 18:10 | 18:30 | | Round Table: Ocean-Atmosphere Fluxes – Moderators: J. Shutler, PML; N. Reul, <i>Ifremer</i> ; C. Clayson, WHOI, and C. Zappa, Columbia University | |
| 18:30 | 19:30 | | Poster session and cocktail | |
| Day 3 - Thursday, October 30, 2014 | | | | |
| 08:50 | 09:20 | | Wake-up keynote: Reducing uncertainties in global air-sea gas fluxes | R. Wanninkhof, <i>NOAA</i> |
| Session 5 - Momentum fluxes (I) - Chairpersons: A. Stoffelen, KNMI, and M. Portabella, ICM-CSIC | | | | |
| 09:20 | 09:40 | 68613 | Scatterometer ocean winds long term climate data record | A. Stoffelen, <i>KNMI</i> |
| 09:40 | 10:00 | 68346 | Scatterometer-Derived Sea Surface Wind Variability Associated with Convective Systems: a Valuable Source of Air-Sea Interaction Information | M. Portabella, <i>ICM-CSIC</i> |
| 10:00 | 10:20 | 69123 | Presentation, Analysis and Release of synthetic swell field database generated using full ENVISAT/ASAR Wave Mode archive in preparation of Sentinel-1 | R. Husson, <i>CLS</i> |
| 10:20 | 10:40 | 68370 | Evolution of Surface Drift at Short Fetches, its Influence on Surface Wave Growth and Potential Implications to Remote Observations of Surface Waves and Currents | F. Ocampo-Torres, <i>CICESE</i> |
| 10:40 | 11:00 | 68371 | Marine Atmosphere Couplings under Extremes | B. Chapron, <i>Ifremer</i> |
| 11:00 | 11:20 | | Coffee Break | |
| Session 5 - Momentum fluxes (II) - Chairpersons: C. Zappa, Columbia University, and M. Bourassa, Florida State University | | | | |
| 11:20 | 11:40 | 70022 | Improvements of Storm Surge Forecasting in the Gulf of Venice with Scatterometer Wind Data: the ESA DUE eSurge-Venice Project | F. De Biasio, <i>Istituto di Scienze dell'Atmosfera e del Clima</i> |
| 11:40 | 12:00 | 68242 | Resolving Small Scale Variations of Meteo-Marine Parameters in Coastal Regions with TerraSAR-X | S. Jacobsen, <i>German Aerospace Center</i> (presented by C. Gebhard, <i>German Aerospace Center</i>) |
| 12:00 | 12:20 | 71117 | Global Climate Observing System and Issues with Ocean Surface Fluxes | M. Bourassa, <i>Florida State University</i> |
| 12:20 | 12:40 | 68228 | Validation of Atmosphere-Ocean Heat and Momentum Fluxes over the North Sea in Coupled Climate Simulations | C. Dieterich, <i>SMHI</i> |
| 12:40 | 13:00 | 68356 | Do Differences between NWP Model and EO Winds Matter? | A. Stoffelen, <i>KNMI</i> |
| 13:00 | 14:30 | | Poster aperitif and Lunch | |
| Session 6 - Aerosol (I) - Chairpersons: G. de Leeuw, FMI, and S. Pinnock, ESA | | | | |
| 14:30 | 14:50 | 68291 | A Sea Spray Aerosol Source Function Including Wave State Effects | J. Ovadnevaite, <i>NUI Galway</i> |
| 14:50 | 15:10 | 67528 | Direct and Indirect Effects of Sea Spray Aerosol using a Source Function Encapsulating Wave State | A-I. Partanen, <i>FMI</i> (presented by J. Ovadnevaite, <i>NUI Galway</i>) |
| 15:10 | 15:30 | 68150 | Combining Satellite and In-Situ Observations to Quantify Mesoscale Variations in Production of Sea Spray Aerosols | Y. Lehahn, <i>Weizmann Institute of Science</i> |
| 15:30 | 15:50 | 71817 | Marine Organics and Sea Spray Aerosol Water Update | C. O'Dowd, <i>NUI Galway</i> |
| 15:50 | 16:10 | 70859 | Satellite-based retrieval of desert dust deposition into the Atlantic Ocean | M. Jaeger, <i>Univ. Bremen</i> |
| 16:10 | 16:30 | | Coffee Break | |
| Session 6 - Aerosol (II) - Chairpersons: I. Koren, Weizmann Institute of Science, and D. Rosenfeld, The Hebrew University of Jerusalem | | | | |
| 16:30 | 16:50 | 68298 | Marine Submicron Aerosol Sources, Sinks and Chemical Fluxes | D. Ceburnis, <i>NUI Galway</i> |
| 16:50 | 17:10 | 68308 | Relationship between Aerosol Methanesulfonate and Remotely Sensed Phytoplankton Activity in Central Mediterranean Sea | S. Becagli, <i>University of Florence</i> |
| 17:10 | 17:30 | 68203 | Large Increase in Cloud Drop Concentrations and Albedo over Sea Surfaces Colder than 7°C | D. Rosenfeld, <i>The Hebrew University of Jerusalem</i> |
| 17:30 | 17:50 | 71135 | When do marine clouds stop being aerosol-limited? | I. Koren, <i>Weizmann Institute of Science</i> |
| 17:50 | 18:10 | | The use of satellite data in marine aerosol studies | G. de Leeuw, <i>FMI</i> |
| 18:10 | 18:30 | | Round Table: Aerosol – Moderators: G. de Leeuw, FMI; S. Pinnock, ESA; I. Koren, Weizmann Institute of Science, and D. Rosenfeld, The Hebrew University of Jerusalem | |
| 18:30 | 19:30 | | Poster session and cocktail | |
| Day 4 - Friday, October 31, 2014 | | | | |
| 08:50 | 09:20 | | Wake-up keynote: Ocean Upwelling and Oxygen Minimum Zones (OMZ): issues and perspectives from satellite observations | A. Paulmier, <i>LEGOS-IRD</i> |
| Session 7 - Atmosphere processes - Chairpersons: R. Volkamer, University of Colorado, and C. Garbe, University of Heidelberg | | | | |
| 09:20 | 09:40 | 68456 | The TORERO field campaign: Eddy Covariance fluxes and vertical profiles of oxygenated hydrocarbons over the tropical Pacific Ocean | R. Volkamer, <i>University of Colorado</i> |
| 09:40 | 10:00 | 68769 | Deriving vertical profiles of free tropospheric trace gases from ground based measurements | S. Coburn, <i>University of Colorado</i> |
| 10:00 | 10:20 | 70767 | Measurements of NO ₂ shipping emissions using optical remote sensing | A.C. Meier, <i>University of Bremen</i> |
| 10:20 | 10:40 | 68673 | Sensitivity of marine N ₂ O to atmospheric N deposition | A. Landolfi, <i>IFM-Geomar</i> |
| 10:40 | 11:00 | 71429 | Deterministic Inference for Aerosol Transport via Atmospheric Flows | C. Garbe, <i>University of Heidelberg</i> |
| 11:00 | 11:20 | | Coffee Break | |
| Session 8 - Physical and biogeochemical processes (I) - Chairpersons: S. Delwart, ESA, and T. Jackson, PML | | | | |
| 11:20 | 11:40 | 71022 | Traceability, Uncertainty and Quality Control of AERONET-OC Data for Satellite Ocean Color Applications | G. Zibordi, <i>Joint Research Centre</i> |
| 11:40 | 12:00 | 68367 | Inversion of Bio-Optical Model to Obtain the Chlorophyll Biomass of three Phytoplankton Size Classes | B. Brewin, <i>Plymouth Marine Laboratory</i> |
| 12:00 | 12:20 | 68660 | Role of photoacclimation on phytoplankton's seasonal cycle in the Mediterranean Sea through satellite ocean color data | M. Bellacchio, <i>Institute of Atmospheric Sciences and Climate</i> |
| 12:20 | 12:40 | 68313 | Marine Primary Production: Model Parameters from Space | H. Bouman, <i>University of Oxford</i> (presented by T. Jackson, <i>PML</i>) |
| 12:40 | 13:00 | 67955 | Determination of the light availability in the ocean using the vibrational Raman effect | T. Dinter, <i>University Bremen</i> |
| 13:00 | 14:30 | | Poster aperitif and Lunch | |
| Session 8 - Physical and biogeochemical processes (II) - Chairpersons: A. Paulmier, LEGOS-IRD, and B. Brewin, PML | | | | |
| 14:30 | 14:50 | 70832 | Terrestrial solar induced fluorescence as seen from space | N. Khosravi, <i>IUP</i> |
| 14:50 | 15:10 | 68791 | The other CO ₂ problem: Studying Ocean Acidification using satellite Earth observation | P. Land, <i>Plymouth Marine Laboratory</i> |
| 15:10 | 15:30 | 68661 | Preparatory activities to estimate surface ocean pH from satellite observations | R. Sabia, <i>Telespazio-Vega for ESA</i> |
| 15:30 | 15:50 | 68142 | Anthropogenic CO ₂ and Acidification in the Mediterranean Sea during May 2013 | A. El Rahman Hassoun, <i>CNRS</i> |
| 15:50 | 16:30 | | Final Discussion and closure of the meeting - Moderators: E. Breviere, IFM-Geomar, and C. Donlon, ESA | |