

2017 International Ocean Colour Science Meeting

*Monday 15 May 2017*

- 08:30–12:30 Plenary Session Auditorium I**
- 08:30 - 08:45** Welcoming address (*Stewart Bernard/Cara Wilson - IOCCG, Alain Ratier - EUMETSAT, Craig Donlon on behalf of Josef Aschbacher - ESA*)
- 08:45 – 09:30 Keynote 1:** Imaging Earth’s ocean gardens (*Paula Bontempi, NASA*)
- 09:30 – 12:30 Copernicus Session (Chair: Mark Dowell, EC-JRC )**
- 09:30 – 09:45** Introduction to Copernicus Programme (*Richard Gilmore, EC*)
- 09:45 – 10:00** OCR using Copernicus Sentinel-2 and status of Sentinel-3B (*Craig Donlon, ESA*)
- 10:00 – 10:15** OCR using Copernicus Sentinel-3 (*Ewa Kwiatkowska/EUMETSAT*)
- 10:15 – 10:45 Coffee Break**
- 10:45 - 11:15** OC climate and carbon in CCI and Copernicus Programmes (*Shubha Sathyendranth, PML*)
- 11:15 – 11:30** Sentinel applications: fisheries and aquaculture (*Vanda Brotas, Univ. Lisboa*)
- 11:30– 11:45** Sentinel applications: monitoring harmful algal blooms (*Blake Schaeffer, EPA*)
- 11:45– 12:00** Sentinel applications: monitoring water quality in Africa (*Mark Matthews, Cyanolakes*)
- 12:00– 12:15** Sentinel OCR data access and dissemination (*S. Mecklenburg/ESA, H. Wilson/EUMETSAT*)
- 12:15– 12:30** Activities/plans for cal/val of the Sentinels for OCR (*Ewa Kwiatkowska, EUMETSAT*)
- 12:30 – 14:15 Lunch Break (Room 1: CMEMS operational use of Sentinel OCR data, Rosalia Santoleri /CNR, Italy)**
- 14:15 – 17:00 Breakout Workshops 1, 2 & 3**

Auditorium I Breakout Workshop 1	Auditorium II Breakout Workshop 2	Auditorium III Breakout Workshop 3
<b>Hyperspectral Remote Sensing</b> ( <i>Ryan Vandermeulen, Kevin Turpie</i> )	<b>Trichodesmium Detection from Space</b> ( <i>Cecile Dupouy, Ajit Subramaniam, Lachlan McKinna</i> )	<b>Vicarious Calibration</b> ( <i>Constant Mazeran, Christophe Lerebourg, Sean Bailey</i> )
<b>14:15–14:23</b> Introduction ( <i>S. Craig</i> )	<b>14:15-14:25</b> Introduction	<b>14:15-14:25</b> On-going SVC activities ( <i>C. Mazeran, C. Lerebourg, S. Bailey</i> )
<b>14:25–14:33</b> Phytoplankton diversity ( <i>Astrid Bracher</i> )	<b>14:25-14:45</b> BGC modelling ( <i>Stephanie Dutkiewicz</i> )	<b>14:25–14:35</b> HYPERNAV concept ( <i>Andrew Barnard</i> )
<b>14:35–14:43</b> Hyperspectral applications ( <i>Heidi Dierssen</i> )	<b>14:45-14:55</b> <i>Trichodesmium</i> abundance ( <i>Sara Rivero-Calle</i> )	<b>14:35–14:45</b> HARPOONS concept ( <i>Sean Bailey</i> )
<b>14:45–15:10</b> Discussion	<b>14:55-15:25</b> Discussion	<b>14:45–14:55</b> MOBY-NET concept ( <i>Kenneth Voss</i> )
<b>15:10–15:18</b> Atmospheric correction ( <i>Francois Steinmetz</i> )	<b>15:25-15:45</b> Break	<b>14:55–15:05</b> BOUSSOLE concept ( <i>David Antoine</i> )
<b>15:20–15:28</b> Atmospheric correction of HICO data ( <i>Amir Ibrahim</i> )	<b>15:45-15:55</b> IOP/AOP overview ( <i>Cecile Dupouy, Lachlan McKinna</i> )	<b>15:05-16:00</b> High level requirements
<b>15:30 – 15:55</b> Discussion	<b>15:55-16:05</b> Passive RS ( <i>L. McKinna</i> )	<b>16:00-16:30</b> Operational requirements
<b>15:55 – 16:13</b> Feasibility study for hyperspectral sensor ( <i>Arnold Dekker</i> )	<b>16:05-16:15</b> Freshwater blooms ( <i>Ronghua Ma</i> )	<b>16:30-17:00</b> Recommendations
<b>16:15 – 16:40</b> Open discussion	<b>16:15-16:25</b> Hyperspectral atmospheric correction ( <i>Amir Ibrahim</i> )	
<b>16:40 – 17:00</b> Final discussion	<b>16:25-17:00</b> Discussion	

**17:00 – 18:45 Poster Session I**

**19:00 - 20:30 Ice Breaker at Pavilhão de Portugal**

## Tuesday 16 May 2017

<b>08:30–12:00</b>	<b>Plenary Session</b>	<b>Auditorium I</b>
	08:30 - 09:15	<b>Keynote 2:</b> Dawn of satellite Lidar in oceanography ( <i>Mike Behrenfeld</i> )
<b>09:15–10:00</b>	<b>Space Agency Presentations</b> ( <i>Chair: Heidi Dierssen</i> )	
	09:15 - 09:30	CNES support to ocean colour science ( <i>Anne Lifermann</i> )
	09:30 – 09:45	CSA update ( <i>Martin Bergeron</i> )
	09:45 – 10:00	Update on JAXA GCOM-C ( <i>Hiroshi Murakami</i> )
<b>10:00 – 10:30</b>	<b>Coffee Break</b>	
<b>10:30- 12:00</b>	<b>Plenary Breakout Workshop Reports, Keynote 3</b> ( <i>Chair: Andrew Tyler</i> )	
	10:30 – 10:45	Breakout workshop report: "Hyperspectral Remote Sensing"
	10:45 – 11:00	Breakout workshop report: " <i>Trichodesmium</i> Detection from Space"
	11:00 – 11:15	Breakout workshop report: "Vicarious Calibration"
	11:10 – 12:00	<b>Keynote 3:</b> High resolution (1-30m) optical remote sensing of processes in coastal and inland waters - new opportunities ( <i>Kevin Ruddick</i> )
<b>12:00 – 14:00</b>	<b>Lunch Break</b>	<i>(In Memoriam: Chuck Trees, Motoaki Kishino, Tiffany Moisan, Bob Barnes)</i> <i>(IOCCG Task Force on Satellite Sensor Calibration - Room 1)</i>
<b>14:00 – 16:45</b>	<b>Breakout Workshops 4, 5 &amp; 6</b>	

Auditorium I Breakout Workshop 4	Auditorium II Breakout Workshop 5	Auditorium III Breakout Workshop 6
<b>Remote Sensing of Inland and Coastal Waters</b> ( <i>Wes Moses, Quinten Vanhellemont</i> )	<b>Ocean Colour Algorithms for Southern Ocean</b> ( <i>Maria Vernet, Mati Kahru, David Antoine</i> )	<b>Active Remote Sensing for Ocean Colour</b> ( <i>C. Jamet, J. Churnside, C. Hostetler</i> )
<b>14:00–14:05</b> Introduction ( <i>P. DiGiacomo</i> )	<b>14:00–14:05</b> Welcome ( <i>Maria Vernet</i> )	<b>14:00–14:20</b> Introduction ( <i>Cedric Jamet</i> )
<b>14:05–14:25</b> Atmos. correction ( <i>N. Pahlevan</i> ) ( <i>Nima Pahlevan</i> )	<b>14:05-14:20</b> Southern Ocean chl algorithm ( <i>Mati Kahru, B. Greg Mitchell</i> )	<b>14:20–14:40</b> Airborne ocean profiling lidar ( <i>James Churnside</i> )
<b>14:25–14:45</b> Discussion	<b>14:20-14:35</b> Southern ocean algorithms using Bio-Argo ( <i>Emmanuel Boss</i> )	<b>14:40–15:00</b> Space-borne ocean lidar ( <i>Chris Hostetler</i> )
<b>14:45–15:00</b> Water types ( <i>Tim Moore</i> )	<b>14:35-14:50</b> Backscatter: bubbles, coccolithophores etc. ( <i>Heidi Dierssen</i> )	<b>15:00–16:00</b> Discussion
<b>15:00-15:15</b> Selection of Algorithms ( <i>Evangelos Spyarakos</i> )	<b>14:50-15:05</b> Panel discussion	<b>16:00–16:45</b> Recommendations
<b>15:15–15:35</b> Discussion	<b>15:05-15:35</b> Speed talks	
<b>15:35–15:45</b> Sensors ( <i>Wes Moses</i> )	<b>15:35-16:45</b> General discussion	
<b>15:45 – 16:00</b> Discussion		
<b>16:05–16:15</b> EU Water Service ( <i>Carsten Brockmann</i> )		
<b>16:15 – 16:30</b> AquaWatch ( <i>Steve Greb</i> )		
<b>16:30-16:45</b> Discussion		

<b>16:45 – 17:45</b>	<b>NOAA OC Session: Science, Research &amp; Applications from VIIRS</b> ( <i>Chair: Paul DiGiacomo</i> )
	16:45 to 17:00 Ocean colour at NOAA overview; MSL12, VIIRS, other sensors ( <i>Menghua Wang</i> )
	17:00 to 17:10 OCView - monitoring tool demonstration ( <i>Karlis Mikelsons</i> )
	17:10 to 17:20 Distribution - NOAA CoastWatch/OceanWatch ( <i>Veronica Lance</i> )
	17:20 to 17:30 Example users, applications (NOAA and external) ( <i>Cara Wilson</i> )
	17:30 to 17:45 User engagement discussion ( <i>Paul DiGiacomo, Cara Wilson</i> )
<b>17:45 - 19:30</b>	<b>Poster Session 2</b>
<b>18:30 - 19:30</b>	<b>AquaWatch Town Hall (Room 1)</b>

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**Wednesday 17 May 2017**


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<b>08:30–12:00</b>	<b>Plenary Session</b>	<b>Auditorium I</b>
	08:30 - 09:15	<b>Keynote 4:</b> Resetting the baseline for phytoplankton <i>in situ</i> measurements ( <i>Heidi Sosik</i> )
<b>09:15–10:15</b>	<b>Space Agency Presentations</b> ( <i>Chair: Laura Lorenzoni</i> )	
	09:15 - 09:30	Korean geostationary ocean colour missions, GOCI and GOCI-II ( <i>Seongick Cho</i> )
	09:30 – 09:45	CONAE: Missions and initiatives for coasts and oceans ( <i>Sandra Torrusio</i> )
	09:45 – 10:00	ISRO: Ocean colour activities in India ( <i>Prakash Chauhan</i> )
	10:00 – 10:15	Update on Chinese ocean colour satellite missions ( <i>Zhihua Mao</i> )
<b>10:15 – 10:45</b>	<b>Coffee Break</b>	
<b>10:45 - 12:15</b>	<b>Plenary Breakout Workshop Reports, Keynote 5</b> ( <i>Chair: David Antoine</i> )	
	10:45 – 11:00	Breakout workshop report: "RS of Inland and Coastal Waters"
	11:00 – 11:15	Breakout workshop report: "Ocean Colour Algorithms for the Southern Ocean"
	11:15 – 11:30	Breakout workshop report: "Active Remote Sensing for Ocean Colour"
	11:30 – 12:15	<b>Keynote 5:</b> Research and applications of ocean colour radiometry in the very turbid waters of the Río de la Plata river (Argentina) ( <i>Ana Dogliotti</i> )
<b>12:15 – 14:00</b>	<b>Lunch Break</b>	
<b>14:00 – 16:45</b>	<b>Breakout Workshops 7, 8 &amp; 9</b>	

Auditorium I Breakout Workshop 7	Auditorium II Breakout Workshop 8	Auditorium III Breakout Workshop 9
<b>Multiwater Algorithms and Performance</b> ( <i>Ewa Kwiatkowska, Bridget Seegers</i> )	<b>Protocols for Water-Leaving Radiance and Other Parameters</b> ( <i>K. Voss, G. Zibordi, K. Ruddick, Z.Lee</i> )	<b>Carbon in Ocean Colour</b> ( <i>Shubha Sathyendranath, François Montagner</i> )
<b>14:00–14:05</b> Introduction	<b>14:00–14:20</b> Review of above-water protocols ( <i>Ken Voss</i> )	<b>14:00–14:10</b> Introduction ( <i>François Montagner</i> )
<b>14:05–14:15</b> User requirements ( <i>Stewart Bernard</i> )	<b>14:20–15:15</b> Open discussion	<b>14:10–14:25</b> POC and phytoplankton carbon ( <i>Hayley Evers-King</i> )
<b>14:17–14:27</b> Atmospheric correction methods ( <i>Menghua Wang</i> )	<b>15:15–15:30</b> Break	<b>14:25–14:40</b> Dissolved carbon in the ocean ( <i>Jamie Shutler</i> )
<b>14:29–14:39</b> Bio-optical algorithms ( <i>Daniel Odermatt</i> )	<b>15:30–15:50</b> Review of in-water protocols ( <i>Emmanuel Boss</i> )	<b>14:40–14:55</b> A modeller's perspective ( <i>Cecile Rousseaux</i> )
<b>14:41–14:51</b> Algorithm performance ( <i>Thomas Jackson</i> )	<b>15:50–16:45</b> Open discussion	<b>14:55–15:10</b> Carbon in coastal waters ( <i>Hubert Loisel</i> )
<b>14:53 – 15:03</b> Algorithm assessment ( <i>Rick Stumpf</i> )		<b>15:10–16:45</b> Discussion
<b>15:05 – 15:20</b> Break		
<b>15:20 – 16:30</b> Open discussion		
<b>16:30 – 16:45</b> Recommendations		

**16:45 – 18:30** **Poster Session 3**

**18:45** Bus transportation

**19:00 - 21:00** **Dinner at Pátio da Galé**

## 2017 International Ocean Colour Science Meeting

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### Thursday 18 May 2017

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<b>08:30–17:30</b>	<b>Plenary Session</b>	<b>Auditorium I</b>
08:30 - 09:15	<b>Keynote 6:</b> Lake Colour/Environment Remote Sensing in China ( <i>Ronghua Ma</i> )	
<b>09:15–12:15</b>	<b>NASA OCRT Session</b> ( <i>Chairs: Paula Bontempi, Laura Lorenzoni</i> )	
09:15 - 09:45	Program update, export processes, community Q&A ( <i>Paula Bontempi</i> )	
09:45 – 10:00	Ocean biology and biogeochemistry advanced planning ( <i>Heidi Dierssen</i> )	
<b>10:00 – 10:15</b>	<b>Coffee Break</b>	
10:15 – 10:45	NASA OBPg/satellite ocean colour update ( <i>Bryan Franz</i> )	
10:45 – 11:00	SeaBASS updates ( <i>Chris Proctor</i> )	
11:00 – 11:15	PACE mission ( <i>Antonio Mannino</i> )	
11:15 – 11:30	PACE science team ( <i>Emmanuel Boss</i> )	
11:30 - 11:45	North Atlantic Aerosols and Marine Ecosystems (NAAMES) ( <i>Mike Behrenfeld</i> )	
11:45 - 12:00	Ship-Aircraft Bio-Optical Research (SABOR) results ( <i>Alex Gilerson</i> )	
12:00 - 12:15	Quality assuring remote sensing reflectance spectrally ( <i>Zhongping Lee</i> )	
12:15 - 12:20	Wrap-Up ( <i>Paula Bontempi</i> )	
<b>12:20 – 14:00</b>	<b>Lunch Break</b>	
<b>14:00 - 15:30</b>	<b>Plenary Breakout Workshop Reports, Keynote 5</b> ( <i>Chair: Cara Wilson</i> )	
14:00 - 14:15	Breakout workshop report: "Multiwater Algorithms and Performance"	
14:15 - 14:30	Breakout workshop report: "Protocols for Water-Leaving Radiance "	
14:30 - 14:45	Breakout workshop report: "Carbon in Ocean Colour"	
14:45 - 15:30	<b>Keynote 7:</b> Continuity of Ocean Color Radiometry Data: Operations= Research + Applications + Services + Users ( <i>Paul DiGiacomo</i> )	
<b>15:30– 16:00</b>	<b>Coffee break</b>	
<b>16:00 – 17:30</b>	<b>Q &amp; A Session: Ocean Colour Community and Space Agencies</b>	

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### Friday 19 May 2017

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#### Training Courses at the Instituto Português do Mar e da Atmosfera (IPMA)

Rua C do Aeroporto, 1749-077 Lisbon

1. Copernicus Data: 09:30 - 14:15
2. SeaDAS Training: 09:15 - 12:20