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Monday, May 11

9:30-9:45 OPENING BY THE CHAIRS

Jaume Piera, Institute of Marine Sciences (ICM, CSIC), Spain
Carine Simon, Institute of Marine Sciences (ICM, CSIC), Spain
Julia Busch, University of Oldenburg, Germany
Nuno Gracias, University of Girona, Spain

9:45-10:30 KEYNOTE TALK

Shelf sea remote sensing -are we finding solutions, or just redefining the problems? 1

Alex Cunningham, University of Strathclyde, UK

REMOTE SENSING, RADIOACTIVE TRANSFER AND MODELLING

- | | | |
|--------------------|---|---------------------|
| 10:30-11:00 | WASI-2D: A software for the analysis of remote sensing images from deep and shallow waters | Invited talk |
| | Peter Gege, German Aerospace Center, Germany | 2 |
| 11:00-11:30 | COFFEE | |
| 11:30-11:45 | Determination of the light availability in the ocean utilizing the vibrational raman scattering 4 | |
| | Tilman Dinter, Vladimir Rozanov, John P. Burrows, Astrid Bracher | |
| 11:45-12:00 | Environmental modeling simulation transport and diffusion with application by laser radar 6 | |
| | Mohammedi Ferhat, Jouadi Najette | |
| 12:00-12:15 | Upwelling radiance degree of polarization over the sea surface - modelling and measurements 9 | |
| | Jacek Piskozub, Włodzimierz Freda | |
| 12:15-12:30 | Light penetration in seawater polluted by dispersed oil: results of radiative transfer modeling 11 | |
| | Kamila Haule, Henryk Toczek, Mirosław Darecki | |

Monday, May 11

- 12:30-12:45** **Simulation of hyperspectral light dependence of vertical displacements and self shading from phytoplankton dynamics** 13
Eloy Zafra Santos, Albert M- Sanchez, Jaume Piera
- 12:45-13:00** **Recent advances using hyperspectral in situ measurements of remote-sensing reflectance for the assessment of marine phytoplankton biodiversity** 15
Elena Torrecilla Jaume Piera, Astrid Bracher
- 13:00-14:30** **LUNCH**

INNOVATIVE SUB-SEA OPTICAL TECHNIQUES AND INSTRUMENTATION

- 14:30-15:00** **New designs of CMOS based lens-free microscopy for particles and cells analysis** N/A **Invited talk**
Valerio Pruneri
- 15:00-15:15** **Numerical compensation of the optical aberrations in digital holographic microscopy for deep ocean measurements** 17
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- 15:15-15:30** **NOSS in situ density sensor** 19
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- 15:30-15:45** **Development and deployment of an in situ Raman spectrometer for deep sea applications** 21
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- 16:30-16:45** **In-situ online measurement of upwelling radiance: investigation of a hydrographic sub-hull installation in a research vessel** 25
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Tuesday, May 12

INNOVATIVE SUB-SEA OPTICAL TECHNIQUES AND INSTRUMENTATION

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