

Co-sponsored by the  
**Institute of Physics**  
**Optical Group**



# Underwater Optics and Marine Remote Sensing

**One-day meeting: Wednesday, 8 October 03 - at Photonex03, Stoneleigh Park, Warwickshire, UK**

**Location: Royal Pavilion Guest Lounge - Registration is necessary for this meeting**

Applications of optics in the marine environment cover an enormous range of physical scales, from single particle analysis to satellite remote sensing. These applications generate interesting problems in optical physics, instrument design, radiance transfer modeling and underwater engineering.

## PROGRAMME

| Time  | Speaker  | Title  |
|---|--|--|
| 09.50   | Welcome  | A Cunningham/Chair - <i>University of Strathclyde</i>    |
| <b>New optical instruments for marine science</b>   |  |  |
| 10:00   | In-situ underwater cytometry for phytoplankton studies   | RKY Chan - <i>Hong Kong Baptist University</i>           |
| 10:20   | 81km distributed temperature sensor based on coherent detection of spontaneous Brillouin scattering                                  | M Alahbabi – <i>Optoelectronics Research Centre</i>      |
| <b>Applications of novel measurement techniques</b> |  |  |
| 10:40   | Observations of coastal sediment erosion using in-line holography  | H Sun – <i>University of Aberdeen</i>                    |
| 11:00   | <b>- break for coffee -</b>  |  |
| 11:20   | Flow structure and turbulence distributions in the coastal ocean from PIV data   | WAM Nimmo Smith – <i>University of Plymouth</i>          |
| <b>Optics of estuaries</b>                          |  |  |
| 11:40   | The influence of the tide on underwater lighting in an estuary   | D Bowers – <i>School of Ocean Sciences</i>               |
| 12:00   | Optical properties of estuarine waters. Development of new quantification algorithms.  | D Doxaran – <i>Institute of Marine Sciences</i>          |
| 12:20   | <b>- break for lunch &amp; exhibition visit -</b>  |  |
| <b>Inherent optical properties of shelf seas</b>    |  |  |
| 14. 00  | Modelling radiance transfer in coastal and shelf seas  | D McKee – <i>Environmental Optics Laboratory</i>         |
| 14:20   | Modelling and measurements using a volume scattering function meter within a Coccolithophore bloom                                   | TJ Smyth – <i>Plymouth Marine Laboratory</i>             |
| <b>Optical monitoring in the marine environment</b> |  |  |
| 14:40   | Interpreting SeaWiFS level 2 data products for UK shelf seas.  | A Dudek – <i>Environmental Optics Laboratory</i>         |
| 15:00   | Comparison of MERIS, MODIS, SeaWiFS and a bio-optical model output with in situ data from the Western Channel, Celtic and North Sea. | D Blondeau-Patissier – <i>Plymouth Marine Laboratory</i> |
| 15:35   | <b>- break for tea -</b>   |  |
| 15:50   | Optical measurements on SmartBuoy: a platform for operational ecosystem monitoring.  | DK Mills - <i>CEFAS</i>                                  |
| 16:10   | <b>- concluding remarks -</b>  |  |