

Challenger Wave



Monthly newsletter of the Challenger Society for Marine Science (CSMS)

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NEWS

Director of SAGES+

Professor Mark Inall has been appointed as Director of SAGES+ (Scottish Alliance for Geoscience, Environment and Society), with effect from 1st December 2015.

Professor Inall is Associate Director and Principal Investigator in Physical Oceanography at the Scottish Association for Marine Science (SAMS).

Mark's research addresses marine mixing processes in the broader context of ocean-shelf interaction in mid- and high- latitudes. His specific interests are in internal wave generation by tidal flow over topography and the subsequent decay

to turbulence. More recently, his interests have moved towards teleconnections, causal links spanning thousands of kilometres and taking effect over long periods, between small-scale movements in the oceans and atmosphere and large-scale patterns in the global climate system.

Professor Inall gained his BSc in Physics from the University of Edinburgh, followed by both MSc and PhD in Physical Oceanography from the University of Southampton. He has undertaken research at the Universities of Cambridge, Bangor and Victoria (BC). Since 1998 he has led a marine physics research group at SAMS, with more recent responsibility for directing the Institute's research portfolio. He co-developed Scotland's first Marine Science BSc for the University of the Highlands and Islands. He is a Fellow of the Institute of Physics, and is Honorary Professor in the College of Science & Engineering at the University of Edinburgh.

A funding bridge opportunity from the Challenger Society

The career path of a research scientist is often peppered with funding gaps or fixed term contracts which can be an obstacle to developing an established career. The Challenger Society recognises this, and has developed the Stepping Stones Bursary as a source of funds for talented researchers in marine science who do not hold a permanent position. Bursaries of up to £1000 are available for research activities including collaborative visits, fieldwork and conference participation. Those holding fixed term contracts or studentships may apply up to three months before the end of their contract. Application deadlines for 2016 are Feb 15th, May 15th, Aug 15th and Nov 15th. The Challenger Society aims to award four bursaries per year. For further information and an application form, please go to:

http://www.challenger-society.org.uk/Stepping_Stones.

VIEWS

17th Biennial Challenger Society for Marine Sciences conference: "Oceans and Climate". The next biennial Challenger Society for Marine Science conference will be held in Liverpool 5th to 8th September 2016, see Calendar section. Session proposals from all aspects of marine sciences, ocean technology and marine policy are

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invited.

The conference committee will consider all proposals and a call for abstracts under the successful session programme will be announced in February 2016. The conference will provide space for up to 24 sessions, including oral presentations and dedicated poster sessions with multimedia capability over 3 days. Space and funding is also available to support special interest groups (SIGs), large project meetings and education/outreach events, with free facilities offered on Monday 5th and Friday 9th September. We look forward to seeing you in Liverpool next September - **Dr Matthew R. Palmer**, on behalf of the conference local organising committee.

SALTS

No news from sea this month I'm afraid

I know that this is a favourite section for many readers, where we get the inside information about life at sea, its thrills and spills. So please the next time you are at sea or carrying out any fieldwork, please remember that a simple paragraph or two will get you published here. – **Ed**

CALENDAR

14th-18th December 2015: AGU Fall Meeting San Francisco, USA

Don't forget the IMBER session (OS #21) Trajectories of change in the Southern Ocean. This session is a contribution to the IGBP celebration synthesis and is co-convened by the IMBER, SOLAS and PAGES core projects of the IGBP

The Southern Ocean is a critical part of the Earth system and host to unique and diverse marine ecosystems. The region is experiencing rapid changes as the climate continues to warm: dynamic and thermodynamic processes are affecting sea-ice cover, oceanographic processes, atmosphere-ice-ocean interactions as well as the Antarctic ice sheet. How will these changes alter the Southern Ocean's ability to absorb heat, carbon dioxide and support ocean productivity? Will the changes result in feedbacks that accelerate or slow the rate of climate change? This session will

address such questions by assessing recent insights from contemporary and palaeoclimatic observations and models.

<https://agu.confex.com/agu/fm15/preliminaryview.cgi/Session8669.html>

6th-8th January 2016: AMBIO VII, Advances in Marine Biogeochemistry Conference

University of Oxford, UK



AMBIO VII: Advances in Marine Biogeochemistry Conference

Save the date!



January 6th-8th 2016 University of Oxford
Coming to the Department of Earth Sciences: The 7th biannual meeting of The Marine Biogeochemistry Forum - Special Interest Group of The Challenger Society for Marine Science. Further announcements to follow.



17th-18th February 2016: Society of Maritime Industries Annual Conference

Hull, UK

Maritime Engineering: Exploring Business Opportunities in a Diverse Sector. As per previous editions the 2016 conference will include industrial visits, one-to-one meetings and an evening reception and dinner. The programme will soon be announced info@maritimeindustries.org

12th-17th June 2016: Gordon Research Conference on Ocean Biogeochemistry, Hong Kong

The 1st Gordon Research Conference (GRC) on Ocean Biogeochemistry will be held at the Chinese University of Hong Kong. The topic of this first conference will be *The Biologically-Driven Ocean Carbon Pumps*.

Interested researchers, postdoctoral fellows and graduate students are invited to apply for participation as soon as possible on the GRC website (Online Application):

<http://www.grc.org/programs.aspx?id=17297>

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[Nianzhi Jiao](#) and [Eileen E. Hofmann](#) (Chairs)
[Louis Legendre](#) and [Sylvia Sander](#) (Vice Chairs)

5th-7th July 2016: UK Antarctic Science Conference

UEA, Norwich, UK

We welcome everyone working on Antarctic or Southern Ocean science, including techniques such as in situ measurements, numerical models, laboratory experiments or remote sensing. The conference welcomes all science disciplines, including cryosphere, earth, atmosphere, marine, climate and life sciences.

There are rooms booked for associated meetings Monday - Tuesday and Thursday - Friday, so if you would like to organise a side meeting (e.g. UK Polar Network, Sea Ice group) then please contact us. We also look forward to hearing from you if you are interested in sponsoring the conference or having a stand or display at the conference.

We look forward to welcoming you to Norwich. Details of the conference website, deadlines, registration and abstract submission will follow shortly.

5th-8th September 2016: 17th Biennial Challenger Society Conference: Oceans and Climate

Liverpool, UK

First announcement and call for sessions

<http://www.liv.ac.uk/challenger-conference-2016/>

We are pleased to announce the next biennial Challenger Society for Marine Science conference will be held in Liverpool in September 2016. Session proposals from all aspects of marine sciences, ocean technology and marine policy are invited before the deadline of 1200 (UTC) Wednesday December 16th 2015. Session proposers should provide a title, list of conveners (4 maximum) and session description (100-300 words) via email to csms_session@noc.ac.uk including the proposer's name and session title in the email subject e.g. "Smith J.: Deep Ocean Physics". This email address is for session submissions only.

The conference committee will consider all proposals and a call for abstracts under the successful session programme will be announced in February 2016. Where significant overlap exists between proposed sessions the committee will ap-

proach conveners to arrange joint or amalgamated sessions. The conference will provide space for up to 24 sessions, including oral presentations and dedicated poster sessions with multimedia capability over 3 days.

Space and funding is also available to support special interest groups (SIGs), large project meetings and education/outreach events, with free facilities offered on Monday 5th and Friday 9th September. Please submit proposed events of this type using the same format as for scientific sessions with the subject prefix "SIG:".

Further enquiries can be made via csms_enquiry@noc.ac.uk. We look forward to seeing you in Liverpool next September, - **Dr Matthew R. Palmer**

On behalf of the conference local organising committee.

12th-16th September 2016: CIESM Congress

Christian Albrechts University, Kiel

To All CIESM Friends, this will be the first time that our Congress takes place in Germany, which has been a Member of our Commission since 1969.



As many of you as possible, we hope, will join us next September on the Baltic coast to take part in the 41st triennial CIESM Congress. You will be able to present a paper (2 max) at the Congress on the double condition that (a) your paper is accepted by the relevant Committee Chair, and (b) it matches the list of themes selected by the CIESM Science Council www.ciesm.org/marine/congresses/themes.php If one or more of these themes match your research, you now have until early 2016 to prepare a brief Congress paper

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following the instructions given at www.ciesm.org/marine/congresses/CIESM41stCongress.pdf. The submission period will be open online from **4 January - 15 February 2016**. Precise info on the online submission procedure will be published in mid-December. With my best regards, Frederic Briand, Director General, The Mediterranean Science Commission, CIESM

15th-17th November 2016: SUT 2016 Technical Conference, The Future of Underwater Technology

London, UK

Abstracts are now invited for submission of papers for the SUT Future of Underwater Technology Conference 2016. The conference will be held in London (UK) to celebrate the 50th anniversary year of the Society. It aims to attract the best authors in their field from across the world to showcase new technologies, products, best practices and in particular foresight the next generation of subsea engineering, marine science, and all aspects of underwater technology.

It will be a flagship event for the Society and it is the intent for it to become a regular occurrence and be held in future at SUT global centres around the world.

The SUT Technical Conference 2016 will offer:

- First class sessions and networking
- Opportunity to connect with underwater engineering, science, and business professionals from around the world and progress your knowledge
- A showcase for the latest technologies in subsea engineering, marine science, and all aspects of underwater technology
- An opportunity to see and meet the talent of students and young professionals that are emerging as the next generation in our industry
- The conference will have an intimate exhibition area which will provide excellent opportunities for networking and knowledge exchange.

Academics, Consultants, Engineers and Scientists, Business Executives and Managers, Lawyers, Insurers and Underwriters, Researchers, Technicians, Young Professionals and Students are some of the people we expect to see at the conference. There are also opportunities for sponsorship and to take up exhibition space. The venue will allow provision for vessel access

alongside.

General Guidelines

- Abstracts will be reviewed and a decision on acceptance will be made by the Technical Steering Committee (TSC).
- You must obtain the necessary permissions from your management/superiors to present/publish your paper.
- A brief abstract of 250-500(max) words is required for assessment and must be submitted on the abstract submission form (see below). Your abstract should include a description of the proposed paper, any results/conclusions, and the technical category most applicable to your paper (See website).
- Abstracts can be received any time up to 9th May 2016.
- Final written papers must be original and approximately 3000-5000 words.
- If accepted your paper will be published in the conference information media including the SUT website.
- Papers are to be technical in nature and SUT policy does not support the use of commercial trade names, company logos, or text that is overtly commercial in nature in the paper title, text, or slides. Use of such terms will result in careful scrutiny by reviewers evaluating abstracts.
- Presentation of papers at the conference will be in MS PowerPoint and are to be in a common conference format (template to be provided). Twenty minutes will be allotted to each paper, including introduction, presentation, questions and answers.
- Authors will be required to pay a fee (giving right to full registration – see website for registration fees) and present the paper at the conference. Failure to present the paper at the conference may exclude from publication.

- SUT have an Open Access policy. Papers will be published in digital format by SUT and will be archived on OnePetro.org. Selected papers will be assessed for publication in the Society's Journal, *Underwater Technology*.

The programme will consist of plenary sessions, technical sessions, and student poster displays. Substantial effort will be made to ensure the highest quality programme with emphasis on the theme of the event. The final programme will be developed by the Technical Steering Committee which will be made up of representatives from the whole SUT organisation including Branch Committees, Special Interest Groups, and Council. Provision has been made for approximately 200 papers to be presented in plenary and parallel sessions throughout the 3 day event.

Call for abstracts open: Oct 2015

Deadline for abstract submissions: 9 May 2016

Authors notified: 10 Jun 2016

Deadline receipt of publication quality papers: 23 Sep 2016

Deadline receipt of conference presentation: 7 Oct 2016

Please use the abstract submission form, which can be downloaded from www.sut.org/event/sut2016. Abstracts should be submitted in English and in Microsoft Word format; please do not send PDF format abstracts. Abstract forms should be submitted by the deadline by email to sut2016@sut.org. A notice of receipt will be emailed by return. Student poster submissions should use this call process and mark submissions as "Poster"; no paper will be required. If you have any queries about your submission please contact either David Liddle, Business Development Executive david.liddle@sut.org, or Kirsty Webster, Events Manager: kirsty.webster@sut.org

CSMS email addresses are president, admin, membership, secretary and treasurer@challenger-society.org. Contributions for next month's edition of Challenger Wave should be sent to: john@vectisenvironmental.com by the 31st December.

We continue to send printed copies of Challenger Wave to members of the CSMS without email addresses. However it is in everybody's interest to send your email address to Jennifer Jones jxj@noc.ac.uk as soon as possible

JOBS



MARE



PhD position in Ocean Modelling

The Marine Research Centre (MARE) of the University of Liège (ULg) (Belgium) is offering a Ph.D. grant in the framework of the FaCE-It project (Functional biodiversity in a Changing sedimentary Environment: Implications for biogeochemistry and food webs in a managerial setting), financed by the Belgian Science Policy (Belspo) in the frame of the BRAIN program. The project is coordinated by Steven Degraer and Ilse De Mesel (Royal Belgian Institute of Natural Science – DO Nature) and is in collaboration with Karline Soetaert, Jan Vanaverbeke, Tom Moens (UGent, marine biology research group), Gert Van Hoey (Institute for Agricultural and Fisheries research; Aquatic environment and quality) and Marilaure Grégoire, A. Capet, JM. Beckers, E. Delhez, A. Barth (ULg MARE).

FaCE-It aims at understanding the impact of a changing sedimentary environment on the benthic ecosystem functioning (*i.e.* biogeochemical cycling and food webs) of the Southern Bight of the North Sea (SBNS) from the local scale to those larger scales in which managers are interested in for the implementation of the MSFD. More specifically, the project will investigate the impact of the hardening, resulting mainly from the installation of offshore wind farms, and fining, resulting from multiple human activities (e.g. aggregate extraction) on the biogeochemistry and foodweb structure at local and larger scales.

The PhD thesis will be targeted towards the implementation of a tri-dimensional (3D) hydrodynamical-sediment transport model of the SBNS. The candidate will have to run the model in order to understand the processes that govern the distribution of the suspended particulate matter and seafloor sediment grain size and, to differentiate the impact of natural versus anthropogenic forcings (e.g. aggregates extraction, wind farms). Based on case studies of extraction sites derived from the literature, the model will simulate and scale the impact of aggregate extraction on seafloor integrity and hydrographical conditions (Descriptors 6 and 7, Marine Framework Strategy Directive). The PhD candidate will have to upgrade the hydrodynamical model by adding a representation of some specific sediment processes (e.g. diagenesis, biodeposition by filter feeders) based on local modelling and experiments performed in the project. This model upgrade will allow scaling up the impact of substrate modifications on the biogeochemistry, benthic functionality and food webs. Information derived from the model will be used to propose new indicators relevant for the MFSD.

Requirements for application:

- M.Sc. in engineering, physical science, earth and environmental sciences or equivalent.
- Above-average knowledge of Unix and FORTRAN90, and experience with supercomputers are welcome
- Good knowledge in English.

Duration: Four years from early 2016.

The candidate will collaborate with a team of scientists from different fields of oceanography (biological, chemical, sedimentology, modelling).

The candidate should send as soon as possible **by e-mail** his/her curriculum vitae, a covering letter of motivation, together with two references (name and email address), to Marilaure Grégoire (email: mgregoire@ulg.ac.be).