

# Challenger Wave



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

## NEWS

### Seeking Challenger Medal Nominations 2018

With the occasion of this year's Challenger Conference to be held in Newcastle in September 2018, I am writing to seek your nomination for this year's Challenger Medallist. The Challenger Medal is awarded to a distinguished UK marine scientist or other person who has made a single major contribution, or a sustained contribution, to the development of marine science, or whose innovation has opened up new perspectives. The Challenger Medal is the premier award of the Society and is presented on the occasion of the Challenger Lecture made by the recipient during the Challenger Society Conference, at Newcastle University in September 2018.

Nominations should be made by letter, explaining the reasons for nomination, quoting, where appropriate, relevant reference to scientific publications or other contributions. Nominations should be submitted to the President of the Society, Professor Rachel Mills ([rachel.mills@soton.ac.uk](mailto:rachel.mills@soton.ac.uk)) by 31st January 2018. Full details can be found at [http://www.challenger-society.org.uk/The\\_Challenger\\_Medal](http://www.challenger-society.org.uk/The_Challenger_Medal). - **John Bacon, Honorary Secretary, Challenger Society for Marine Science**

### Copernicus Special Issue on "Developments in the Science and History of Tides"

We are pleased to announce a special issue of Copernicus journals called "Developments in the Science and History of Tides". The issue is open to any aspect of the subject including the present accuracy of coastal, regional and global tide models, tidal dissipation and its role in geophysics, internal tides and their role in mixing the ocean and in the global ocean circulation, secular changes in tides, and new techniques for

measuring tides and analysing the data. The issue also welcomes new findings on earth and atmospheric tides, the role of tides in the origin of life on earth, palaeo-tides, lake and planetary tides and many other aspects of tides.

In order to accommodate such a wide range of topics, the special issue will span five Copernicus journals:

*Ocean Science* – for aspects of tides in the ocean.

*Nonlinear Processes in Geophysics* – for aspects of tidal dynamics including internal tides.

*Solid Earth* – for aspects of solid earth and planetary tides

*Atmospheric Chemistry and Physics* – for aspects of atmospheric tides

*History of Geo- and Space Sciences* – for any aspect of the history of tidal science or scientists

The Copernicus journals provide a good mechanism for different types of paper to appear in different journals but be linked within the same special issue. This will be the first time that a special issue has spanned so many journals. The special issue is open for submissions from 1 January 2018, and will stay open until at least the end of 2019, thereby taking advantage of new findings presented at the IUGG in Montreal (9-18 July 2019). However, it is open to any contributor, not only to those who plan to attend the IUGG. Authors can submit their contributions by using the online registration form on the websites of any of the above journals. During the registration process, it is important that the correct special issue is selected, which is "Developments in the science and history of tides (OS/ACP/HGSS/NPG/SE inter-journal SI)".

The special issue is intended to mark the 100th anniversary of the founding of the Liverpool Tidal Institute (LTI). The LTI was established in 1919 and for many years was the world centre for

knowledge of the tides, with Joseph Proudman taking the lead in dynamical theories, and Arthur Doodson in the analysis of tidal information from around the world, and on tidal prediction. The year 2019 is also the 100th anniversary of the IUGG. The Montreal Assembly will include a Joint Symposium on Tides (with IAPSO as the lead Association) that will be open to all of the aspects of tidal science mentioned above. Of course, we hope that contributors to the Symposium write up their work for publication in the special issue.

More information can be obtained from the guest editors: Philip Woodworth ([plw@noc.ac.uk](mailto:plw@noc.ac.uk)), Richard Ray ([Richard.d.ray@nasa.gov](mailto:Richard.d.ray@nasa.gov)) and Mattias Green ([m.green@bangor.ac.uk](mailto:m.green@bangor.ac.uk)). Co-editors are: Ocean Science (Prof. John Huthnance, [jmh@noc.ac.uk](mailto:jmh@noc.ac.uk)), Nonlinear Processes in Geophysics (Prof. Roger Grimshaw, [r.grimshaw@ucl.ac.uk](mailto:r.grimshaw@ucl.ac.uk)), Solid Earth (Prof. J. Huw Davies, [daviesjh2@cardiff.ac.uk](mailto:daviesjh2@cardiff.ac.uk)), Atmospheric Chemistry and Physics (Dr. Tim Dunkerton, [tim@nwra.com](mailto:tim@nwra.com)), and History of Geo- and Space Sciences (Prof. Kristian Schlegel, [kristian.schlegel@copernicus.org](mailto:kristian.schlegel@copernicus.org)).

### Joining the Challenger Society Council

The Challenger Society Council, comprising approximately fifteen ordinary members of the Society, is the body entrusted with managing financial affairs, setting policy and deciding how the Society can best support and engage with the marine science community. The council is led by the serving President and council members, after election at a society AGM, council members generally serve for a period of three or four years taking responsibility for one of the management portfolios administered by the Society. Detail of the current Council membership is listed on the website at [http://www.challenger-society.org.uk/The\\_Council](http://www.challenger-society.org.uk/The_Council). The council meets four times a year (usually in London) and presents the progress of the Society to the membership at the Annual General Meeting, held either at the Challenger Conference or a suitable scientific meeting, in September each year.

During the next 12 months there are three vacancies for council membership places which need to be filled, including the post of Honorary Secretary. For these positions we seek lively and engaging scientists, from academia or industry, enthusiastic about supporting career development for our colleagues and helping to shape and manage the future of one of the oldest and foremost Marine Science Societies in the world.

If you are a full member of the Society and interested in joining the council, please email an expression of interest to the Honorary Secretary ([john.bacon@cefas.co.uk](mailto:john.bacon@cefas.co.uk)) with a short statement of your career to date and how you think that you might best contribute to the Council. Your application will be considered at the next scheduled council meeting and if successful, a proposal for your election at the AGM put forward. Please mark the email subject as Challenger Society Council Application. We really look forward to hearing from you. - **John Bacon**  
**Honorary Secretary, Challenger Society for Marine Science**

### Seeking Challenger Fellowship Nominations 2018

The President would be grateful to receive nominations for Challenger Fellowships before 31st March 2016. Fellowships will be awarded at the Challenger conference in Newcastle in September 2018. Fellowships are awarded to early career scientists for their achievement or promise in a branch of marine science: marine biology, marine chemistry, marine geology and marine physics. Details of the nomination process can be found on the Fellowships page on the website at <http://www.challenger-society.org.uk/Fellowships>.

#### Nominations/Eligibility

1. Nominations should be by submitted by email or letter (deadline for submission is **31st March 2018** explaining the reasons for nomination, quoting, where appropriate, relevant reference to scientific publications or other contributions.
2. A short curriculum vitae of the nominee is required.
3. The nomination should be submitted by a single proposer with support by one or preferably two others.
4. Nominations should be submitted to the President of The Society [rachel.mills@soton.ac.uk](mailto:rachel.mills@soton.ac.uk) (from whom advice may also be sought).
5. Nominees should be members of the Society.
6. Nominations and applications will be considered by the Council of the Challenger Society.

7. Current Council members of the Society are ineligible for any award or prize.

- **John Bacon, Honorary Secretary, Challenger Society for Marine Science**

## VIEWS

### Updates for members interested in the Challenger Society History SIG

There is new material on the Wormley web site (<http://www.oceanswormley.org>)

- An article by Edward Cooper and Gwyn Griffiths describes the development of seagoing navigation systems from the 1950s and 60s up to the present day era of high accuracy GPS. You can find this under the "Technologies and Infrastructure" page.
- On the "People" page, Colin Pelton gives an appreciation of marine geologist John B Wilson, an expert on the carbonate sediments of the NW European shelf, who sadly died in October.
- Also on the "People" page, Peter Herring describes the reunions that have taken place of officers and scientists who took part in the International Indian Ocean Expedition aboard the then-new RRS Discovery.

I'm looking for photographs; I have almost completed a table giving summary information about the 19 vessels that have been designated Royal Research Ships. The number 19 includes the Sir David Attenborough now being built and recognises that RRS Discovery (1962) and RRS Challenger (1971) were altered substantially during major refits. I have not been able to find photographs of RRS Challenger as she looked when she was launched and would like to know if anyone has any.

A meeting is being planned, sponsored jointly by the Challenger Society History SIG and the Royal Met Soc History Group. It will focus on how our ability to collect ocean temperature and salinity profiles has developed from the era of the Challenger Expedition (1870s) to the present day when the Argo array of profiling floats now provides global coverage. It will also highlight the products derived from these data and will look towards future developments. The meeting will be at NOC, Southampton on November 21st 2018. More information will be circulated as it becomes available. - **John Gould** ([wig@noc.soton.ac.uk](mailto:wig@noc.soton.ac.uk))

### Plate Tectonics on the BBC World Service

Listening to the BBC World Service the other night I heard a nice story of the development of the concept of plate tectonics. It showed the interplay of individual scientists and the contribution of new (ocean) observations. I enjoyed listening to it and thought you might too (<http://www.bbc.co.uk/programmes/w3csvpg2>), Happy New Year. - **John Gould**

## 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

### 15th February 2018: Business Breakfast Meeting

NOC, Southampton, UK



NOC Business Breakfast Club Meeting 15 February 2018

#### Happy New Year

Now 2018 is here it is time to begin planning the events you will be attending this year.

Over the coming months we will be sending you exciting information about events we will be hosting, attending and supporting locally, nationally and internationally.

2018 is going to be a busy event year and we look forward to catching up with you.



#### NOC Business Breakfast Meeting – Thursday 15 February 2018

On the Thursday 15 February 2018 the National Oceanography Centre, Southampton (NOC) will be hosting the next in its series of NOC Business Breakfast meetings.

At this Breakfast Club meeting, Richard Hall will be talking about the new ERDF Innovation Network Programme and how it will help SMEs access the expertise and facilities of the Knowledge Base using Mini Grant, (£2,400 for the mini grant funded 80%) and Maxi grants. (£24,500 funded 49%)

Breakfast will be served from 0830 with the presentation beginning at approximately 0915. The room is available before and after the presentation for free format networking giving an opportunity for industry to meet and network with NOC and Innovation Network staff and take part in opportunistic discussions, whilst enjoying breakfast and a coffee.

This event is free to attend, to register please click [here](#)

**13th-15th March 2018: Oceanology International**  
London, UK

Oi oceanology  
international  
2018  
13-15 MARCH 2018, LONDON, EXCEL

Register Now | Who's Exhibiting? | What's On | Venue and travel



1. **Meet the key players:** with 500+ exhibitors from over 79 countries displaying state of the art marine technologies, take the opportunity to explore a diverse range of solutions
2. **Unbeatable networking:** Connect with over 8,000 attendees from a range of different sectors in the exhibition and our Ocean Social networking events
3. **Essential information:** learn from industry experts presenting a diverse programme of technical sessions in the free-to-attend conference
4. **Vessels and demonstrations:** head to the docks to watch live coverage of exhibitor's equipment at work
5. **Discover the latest marine technologies:** Several new features have been added to make it even easier to identify new technology including the Ocean Tech Hub and Ocean ICT Expo

We are pleased to announce that for the first time in 2018, we'll be running the highly anticipated Ocean Futures Forum: an exclusive one day programme (Tuesday 13th March) of informative debates and networking for senior strategists and heads of business. Join Oceanology leaders to take a long term view of Ocean Energy, Business Diversification and Sustainability Trends. For more information visit the [OI website](#) or contact [Ellen Burgess](#).

The CTNW (Catch the Next Wave): Frontiers of Exploration conference has moved. This full day conference, now taking place on Thursday 15 March, organised with The Explorers Club, will examine the intrinsic link between technology and exploration and how one drives the other. Pairs of explorers and technologists will examine the role of enabling technology for exploration on the seafloor, in, on and over the oceans and into space.

Back again for 2018: the free-to-attend Conference Programme

**9 Technical Tracks:** Three days of technical updates and case studies on the latest marine technology and ocean science R&D, applications and best practice. View the confirmed schedule, with speakers confirmed in December.

*January 2018*

**Free Vessel and Dockside Demos:** Visitors are able to watch live coverage of equipment at work via the popular elevated viewing platforms on the dockside or via a covered private meeting area and have the opportunity to network.

**Near and Far Markets Sessions:** Content will be delivered by Trade Commissions and Regional Trade & Industry groups, showcasing opportunities within their country/region, support mechanisms provided to assist trade with the country/region (including inward investment) and any products, services or companies from the country/region who want to work with Oi's international audience

**8th-13th April 2018: European Geophysical Union (EGU) 2018 Meeting**

*Vienna, Austria*

Examples of sessions at this year's meeting are:

**Session OS2.2:** "Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea)". During this session, we propose to overview recent developments and understanding, by observations and modelling, of the Southern European Seas (SES) general circulation, physical processes, their ecosystems and biogeochemical fluxes. For further information, visit the EGU [Assembly site](#). We are looking forward meeting you in Vienna, Marilaure Grégoire, Samuel Somot, Ananda Pascual, Emin Ozsoy, Gianmaria Sannino, Emil Stanev (conveners)

**Session OS2.5 :** "How integrated research infrastructures can support science and policy needs in coastal marine areas". The purpose of this session is to present how the so called coastal Research Infrastructures (RI) are supporting science results and society needs in the coastal seas: from technology developments to analysis of the results after deployment in the field and feeding operational oceanography thanks to assimilation of harmonised data flow. Emphasis is given on 5 scientific areas:

- I. Pelagic phytoplankton biodiversity, with a focus on HAB and Eutrophication.
- II. Monitoring changes in benthic biodiversity
- III. The occurrence of chemical contaminants in coastal waters and biological responses
- IV. The carbon cycle and carbonate systems
- V. 4-D characterisation of trans-boundary hydrography and transport



Studied processes and their variability scales are not restricted but a special attention will be given to interactions between physics and biology/biogeochemistry. In addition to usual research and development results, presentations are expected to exemplify RIs' answers to societal needs, policy requirements in the coastal marine domain. Achievements supported by the JERICO-RI Research Infrastructure are expected but not exclusively. Indeed, the main objective is to exchange results and experiences on the topic at a worldwide level. *Conveners*: Ingrid Puillat (Ifremer, France, [ipuillat@ifremer.fr](mailto:ipuillat@ifremer.fr)), Anna Rubio (AZTI, Spain), Laurent Delauney (Ifremer, France), Catherine Boccadoro (IRIS, Norway) and Luis Felipe Artigas (ULCO, France).

**Session ESS11.1:** "Informatics in Oceanography and Ocean Science". The session presents the state of art information systems in oceanography (metadata, vocabularies, ISO and OGC applications, data models), interoperability (Interoperability forms, Web services, Quality of Services, Open standards), data circulation and services (quality assurance / quality control, preservation, network services) and Education in ocean science (Education and Research, Internet tools for education). The 2018 session should provide new ideas on the interoperability issues deriving from different sources of data. ISO standards introduce the necessary elements in the abstract process aiming to assess 'how' and 'how much' data meets applicable regulatory requirements and aims to enhance user needs. Data management infrastructures should include an evaluation of data by assuring relevance, reliability and fitness-for-purposes / fitness-for-use, adequacy, comparability and compatibility. Presenters are strongly encouraged to demonstrate how their efforts will benefit their user communities, facilitate collaborative knowledge building, decision making and knowledge management in general, intended as a range of strategies and practices to identify, create, represent and distribute data, products and information. *Convenor*: A. Novellino, *Co-Conveners*: Stefania Sparnocchia, Simona Simoncelli; Link: <http://meetingorganizer.copernicus.org/EGU2018/session/26506>

**Session OS4.4/BG3.8:** "Recent advances in ocean physics and biogeochemistry from autonomous underwater vehicles". This session aims to bring together scientists in an interdisciplinary discussion about all aspects of

the scientific analysis of data collected with Autonomous platforms on the coastal, regional, basin, or global scales. Topics on (not exhaustive) physical and biogeochemical variability of the ocean, ocean processes on different spatial and temporal scales (from ocean turbulence to basin-wide circulation), and interactions between the ocean, atmosphere and land, have been welcomed in this session ! *Co-Conveners*: Simón Ruiz, Pierre Testor, Karen Heywood, Antonio Olita; Link: <http://meetingorganizer.copernicus.org/EGU2018/session/28016>

**Session OS4.5:** "Copernicus Marine Environment Monitoring Service (CMEMS)". This session will focus on:

- Scientific advances on themes relevant to CMEMS (e.g. on physical and biogeochemical modeling, coupling with coastal systems; coupling with sea-ice, atmosphere & waves models; data assimilation both for physics and biogeochemistry; impact of existing and future in situ and satellite observations for estimates of the ocean state; processing and analysis of remote and in-situ observations of the ocean) that are needed for the short to long term evolution of the CMEMS products.
- Verification, validation and uncertainty estimates of CMEMS products and forecasting skills.
- The use of CMEMS products for downstream applications,
- Ocean monitoring and on the long-term assessment of the ocean physical and biogeochemical states.

Please note that presentations are not limited to research teams directly involved in CMEMS and participation from external teams is strongly encouraged. A detailed description is given below, and the direct link to session OS4.5 is <http://meetingorganizer.copernicus.org/EGU2018/session/26768>

### 8th-9th May 2018: Arctic Circle Forum Tórshavn, Faroe Islands

The Arctic Circle Secretariat is accepting proposals for sessions at the Arctic Circle Forum to be held in Tórshavn, organized in cooperation with the Government of the Faroe Islands. Governments, universities, companies, research institutions, organizations and associations are welcome to submit proposals.



Proposals will be considered for sessions related to the Forum's themes:

***Innovations for sustainable economic development***

Prospects for new and existing businesses in the Arctic, focusing on IT, digitalization, fishing, shipping, maritime services, energy, tourism, food.

***Transport, investment and infrastructure***

Exploring priorities for infrastructure and investments to promote advancement and growth: maritime transport, telecommunications, education and research.

***Dynamic communities***

Meeting demographic and societal challenges in Arctic societies: gender equality, e-health, community food and energy sustainability.

**DEADLINE:** March 1, 2018

**28th May to 1st June 2018: 50<sup>th</sup> International Liege Colloquium on Ocean Dynamics: Long-term studies in oceanography – a celebration of 50 years of science at the Liege Colloquium Liège, Belgium**

In 2018 we arrive at the 50<sup>th</sup> edition of the International Liège Colloquium of Ocean Dynamics, a perfect reason to celebrate and review the advances made in studying the oceans during the last several decades. In particular, this edition will be dedicated to long-term studies in oceanography. Our knowledge about the ocean has changed dramatically over these past 50 years, as has the availability and quality of data and tools to study the ocean. The ocean plays a crucial role in the regulation of the Earth's climate. As climate change poses an unprecedented threat to the Earth environment, studies that focus on the long-term variation of the ocean and its

response to climate change have therefore become essential to understand and monitor the Earth climate.

Sessions:

***Ocean dynamics & climate change***

Studies addressing the impact of climate change on ocean dynamics, and the influence of the ocean on climate.

***Oceanic climate records (datasets, methods and comparisons)***

Generic studies about model-based and observation-based datasets (reanalyses, reconstructions), their validation and intercomparisons, and studies about specific methods for multidecadal reanalyses and reconstructions (assimilation, bias corrections and drift corrections). Reprocessing and intercalibration of multi-mission datasets.

***Coastal and regional processes***

Studies focusing on long-term variability and local trends of specific regions, including downscaling of large scale climatic processes.

***Trends in polar regions***

Abstracts on the trends of ocean and sea ice dynamics of polar regions, influence of climate on their variability and the impact of these regions on the global climate system.

***Biogeochemical processes***

Studies about oceanic long-term ecosystem changes induced by climate variability.

***Long-term trends in oceanography (open session)***

An open session for all studies on the multidecadal study of the ocean. Abstracts that do not fit in other session can be submitted here.

Contributions to these focal topics are invited: <http://labos.ulg.ac.be/gher/home/colloquium/colloquium-2018/abstract-submission/>. Further details (submission, registration, deadlines, venue, etc) are available at: <http://labos.ulg.ac.be/gher/home/colloquium/colloquium-2018/>.

**Deadline:** Submission of abstracts - 19th January 2018. We are looking forward to welcoming you in Liège in the name of the Organizing Committee:  
Aida Alvera Azcarate, ULG, Belgium  
Jean-Marie Beckers, ULG, Belgium  
Hugues Goosse, UCL, Belgium

#### 4th-8th June 2018: 4th International Symposium on The Effects of Climate Change on The World's Oceans

Washington D.C., USA

\* REGISTER: On-line

<http://meetings.pices.int/meetings/international/2018/climate-change/registration>

• Check sessions:

<http://meetings.pices.int/meetings/international/2018/climate-change/Program>

A good IMBeR relevant session is S13: Multiple stressors at multiple scales: ecosystem based management in the face of changing ocean conditions

\* APPLY: Financial Support

<http://meetings.pices.int/meetings/international/2018/climate-change/support>

We look forward to seeing you in Washington D.C. - ECCWO Symposium Convenors

#### 15th-26th June 2018: POLAR2018 - Where the Poles come together, a SCAR/IASC Conference

Davos, Switzerland

The Scientific Committee on Antarctic Research SCAR and the International Arctic Science Committee IASC invite the international polar and high altitude community to their joint meeting POLAR2018, hosted by WSL and SLF.

#### Program overview

15 - 18 June 2018: SCAR and IASC/ASSW Business & Satellite Meetings

19 - 23 June 2018: SCAR/IASC Open Science Conference, including the COMNAP Symposium

24 - 26 June 2018 SCAR Delegates Meeting & 2018 Arctic Observing Summit

The goal of POLAR2018 is to bring together excellent research from both poles, as well as from high altitude areas, focusing on the similar challenges those regions face. The program features 65 different sessions, structured into 12 categories. In addition to the parallel sessions, central elements of the Open Science Conference (OSC) will be keynote presentations, mini-symposia, extended poster sessions, and exhibitions. The annual COMNAP symposium will be held during the OSC, as well as a plenary lecture from the 2018 Arctic Observing Summit as an opening to this biennial summit immediately after the OSC. A range of excursions and trips will allow participants to make the most of coming to the Swiss Alps and enjoy science, nature, culture, and sports.

[www.challenger-society.org](http://www.challenger-society.org)

#### Davos

POLAR2018 will be held in the Swiss mountain town of Davos, which can easily be reached by train from Zurich Airport. Davos, Europe's highest city, is situated in the Eastern part of the Swiss Alps at 1560 meters above sea level. It offers an advanced congress infrastructure and a wide range of accommodation for all budgets. The stunning alpine environment will ensure your visit is an enjoyable experience. We are looking forward to welcoming you in Davos in June 2018.

#### 10th-13th September 2018: 18th Biennial Conference of the Challenger Society

Newcastle upon Tyne, UK

Registration is now open for the 18th Biennial Conference of the Challenger Society for Marine Science: [conferences.ncl.ac.uk/challenger-2018/registration/](http://conferences.ncl.ac.uk/challenger-2018/registration/). For a list of available sessions, to submit an abstract or check for details and news please visit our website [conferences.ncl.ac.uk/challenger-2018/](http://conferences.ncl.ac.uk/challenger-2018/). We look forward to seeing you in Newcastle upon Tyne in September - Dr Alan Jamieson, Challenger Conference 2018: Organising committee chair

#### 5th-7th November 2018: International Conference on Marine Data and Information Systems

Barcelona, Spain



**IMDIS**  
International Conference on Marine Data and Information Systems

Save the dates for IMDIS 2018 conference!  
Barcelona, 5-7th November 2018

The IMDIS 2018 conference will be held in Barcelona (Spain) from Monday 5 November to Wednesday 7 November 2018. It will be organized by CSIC (Consejo Superior de Investigaciones Científicas, Spain), jointly with IFREMER, OGS and IOC/IOE, in the frame of the SeaDataCloud project (EU H2020 - Grant Agreement 730960).

The conference website is under construction and will be available at the end of November 2017. Abstract submission for oral or poster presentations will be available in January 2018.

For more information, do not hesitate to contact [imdiss2018@seadatanet.org](mailto:imdiss2018@seadatanet.org).

Best regards,  
IMDIS 2018 Organising Committee

SeaDataCloud UTM CSIC Ifremer OGS IOC

**21st November 2018: Joint meeting of the Challenger Society History SIG and the Royal Met Soc History Group**

*NOC, Southampton, UK*

A meeting is being planned, sponsored jointly by the Challenger Society History SIG and the Royal Met Soc History Group. It will focus on how our ability to collect ocean temperature and salinity

profiles has developed from the era of the Challenger Expedition (1870s) to the present day when the Argo array of profiling floats now provides global coverage. It will also highlight the products derived from these data and will look towards future developments. More information will be circulated as it becomes available.

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The CSMS email address is [info@challenger-society.org.uk](mailto:info@challenger-society.org.uk). Contributions for next month's edition of Challenger Wave should be sent to: [john@vectisenvironmental.com](mailto:john@vectisenvironmental.com) by the 31st January.

*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](mailto:jxj@noc.ac.uk), as soon as possible*

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## JOBS

### Call for Applications for an Early-Career Scientist to Join the SCOR Executive Committee

The Scientific Committee on Oceanic Research (SCOR) is an international non-governmental organization whose vision is to advance international ocean research, within and across disciplines, by stimulating international cooperation in ocean sciences. More information about SCOR can be found at [www.scor-int.org](http://www.scor-int.org).

SCOR is governed by an Executive Committee that currently includes 10 members: (1) 6 officers elected from among national SCOR committees, (2) 3 presidents (or their designees) of other parts of SCOR's parent organization (the International Council for Science) that have interests in ocean science, and 1 member appointed by the Executive Committee to add expertise to the committee, currently in geology. More information about the SCOR Executive Committee and its composition can be found at [http://www.scor-int.org/SCOR\\_ExComm.htm](http://www.scor-int.org/SCOR_ExComm.htm). SCOR rules allow the addition of one additional member to the Executive Committee to further improve the balance of membership on the committee. At the 2017 annual SCOR meeting, the Executive Committee decided to add an early-career scientist to the committee, to add perspectives from younger scientists to SCOR discussions.

**Job Description:** The early-career scientist will have the same responsibilities as other SCOR Executive Committee members (see [http://scor-int.org/EC\\_Job\\_Descriptions.pdf](http://scor-int.org/EC_Job_Descriptions.pdf)). The duties of SCOR Executive Committee Members require a few hours each week for responding to emails and reviewing documents, as well as participation in one in-person meeting per year, the annual SCOR meeting. SCOR will pay for the travel costs related to the SCOR meeting. The term of appointment will be for two years.

**Requirements:** Applicants should be no more than 10 years post-Ph.D. or 40 years of age, and be should affiliated to an ocean science organization, institution or government agency. Applicants should have good communication skills in English, both speaking and writing.

**Application and Review Process:** Applicants should submit (1) the [Application Form](#) form, (2) a short CV, and (3) two reference letters to Ed Urban ([ed.urban@scor-int.org](mailto:ed.urban@scor-int.org)) by 23:00 GMT on 31 March 2018. The SCOR Executive Committee will make a selection by 30 April 2018.

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### Call for 500 new scientific positions in Portugal - apply to work at CCMAR

The Foundation for Science and Technology of Portugal (FCT) opened 500 new scientific positions at all levels (Junior researcher, Assistant Researcher, Principal Researcher, Coordinating Researcher). The call is open between 19th January and 15th February.

We invite strong candidates to apply to the FCT 'Stimulus to Individual Scientific Employment 2017' having CCMAR- Centre of Marine Sciences at the University of Algarve, Faro, Portugal ([ccmar.ualg.pt](http://ccmar.ualg.pt)) as the host institution (where selected candidates will be working). CCMAR is a top marine research institute in Portugal, with a vibrant and enthusiastic group of scientists and support, excellent facilities, extensive international collaboration and a leading member of the European Biological Resource Centre ([embrc.eu](http://embrc.eu)). CCMAR invites candidates in all areas from Oceanography, ecology, organismal biology, bioinformatics, biotechnology, etc. Please get in touch if in doubt.

Those interested in applying should send, as soon as possible, considering the short deadline, an e-mail to [ccmar@ualg.pt](mailto:ccmar@ualg.pt) (subject: Scientific Employment 2017) addressed to the director and include: 1) Motivation letter including planned research goals and up to two contacts for references; 2) Curriculum vitae; 3) an indication of which level you are applying for. CCMAR will reply shortly and may carry out online interviews. Detailed information about the call can be found [here](#) in Portuguese (but CCMAR will help with translation and the application). The guidelines (In English) can also be downloaded from the website.

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Looking for a job in marine science ?  
Follow CIESM on Facebook



**In a world where jobs are increasingly hard to find, we are pleased to let you know that we just started to post on our Facebook page a diversity of relevant job offers regularly brought to our attention.  
Follow us on [Facebook](#) now!**

**All the best,  
the CIESM team  
Mediterranean Science Commission**

There are jobs on the IMBER web site

<http://www.imber.info>



Integrated Marine Biosphere Research

## IMBeR e-News

### Announcements and reminders

- [Save the date: AZTI Summer school 5-7 June 2018, San Sebastian, Spain](#)
- [Ocean Training Partnership \(OTP\) to coordinate shipboard training experiences](#)
- [IOI-SA Course in Ocean Governance for Africa, 3-28 Sept in Cape Town. Apply 8Jan-30 April](#)
- [IMBeR-EKLIPSE early career workshop: Science-Policy-Society, 12-15 June, Lošinj, Croatia. More info soon](#)
- [IMBeR ClimEco6 summer school, 1-8 August, Yogyakarta, Indonesia. Applications open in Jan](#)
- [Call for Nominations: SOOS Scientific Steering Committee. Submit by 1 Feb](#)
- [Support needed for one more position on the SCOR Visiting Scholars Program](#)
- [OceanObs'19 Conference, Honolulu, HI, USA, 16-20 Sep 2019. Registration opens in fall 2018](#)
- [Deadlines extended for Effects of Climate Change on World's Oceans symposium - until 12 Jan](#)
- [Special Issue of the GEOTRACES newsletter - Questions and Answers](#)

### Conferences, meetings, workshops and webinars

- [SOLAS Workshop: Remote Sensing for Studying the Ocean-Atmosphere Interface, 13-15 March, Potomac, Maryland, USA. Abstracts by 25 Jan](#)
- [MEASO Conference and Policy Forum 9-13 April, Hobart, Australia. Submit abstracts by 15 Dec!](#)
- [3rd World Small-Scale Fisheries Congress, 22-26 Oct, Chang Mai, Thailand. Abstracts by 15 Feb](#)
- [Fish Forum 2018, 10-14 Dec 2018, FAO, Rome, Italy. Abstracts by 15 May](#)
- [4th Effects of Climate Change on the World's Oceans Symposium, 4-8 June 2018, Washington DC, USA. Abstracts by 12 Jan](#)
- [Liège Colloquium: Ocean Dynamics, 28 May - 1 June 2018, Liège, Belgium. Abstracts by 19 Jan](#)
- [EGU, Vienna, Austria, 8-13 April. Abstracts by 10 Jan](#)
- [International Meeting on Marine Research 2018, Peniche, Portugal. Early registration by 30 May](#)
- [3rd Open Science Symposium on Western Pacific Ocean Circulation and Climate, 8-10 May, Qingdao, China. Abstracts by 15 Feb](#)

### Jobs and opportunities

- [Director of Marine Mammal Institute, Newport, Oregon, USA. Apply by 15 Jan](#)
- [Seven tenure-track positions: Coastal and Marine Science, Wilmington, NC, USA. Apply by 15 Jan](#)
- [Two Assistant Prof positions: Ocean Engineering, U Southern Mississippi, USA. Reviews begin 1 Feb](#)
- [Track-tenured Endowment Chair: Marine science, U Southern Mississippi, USA. Open until filled](#)
- [Fisheries Modeller, NIWA, Wellington, New Zealand. Apply by 6 Jan](#)
- [Associate Director: VIMS Marine Advisory Program, Gloucester Point, VA, USA. Apply by 13 Jan](#)
- [Postdoc: Modelling climate change on Australian fisheries, Adelaide, Australia. Apply by 1 Jan](#)
- [Tenure-track Assistant prof: Marine ecology, Louisiana State University, Baton Rouge, LA. Reviews begin 1 Jan](#)
- [Grants to support training cruises, and fellowships for early-career scientists in developing countries](#)

Visit the IMBeR Website

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