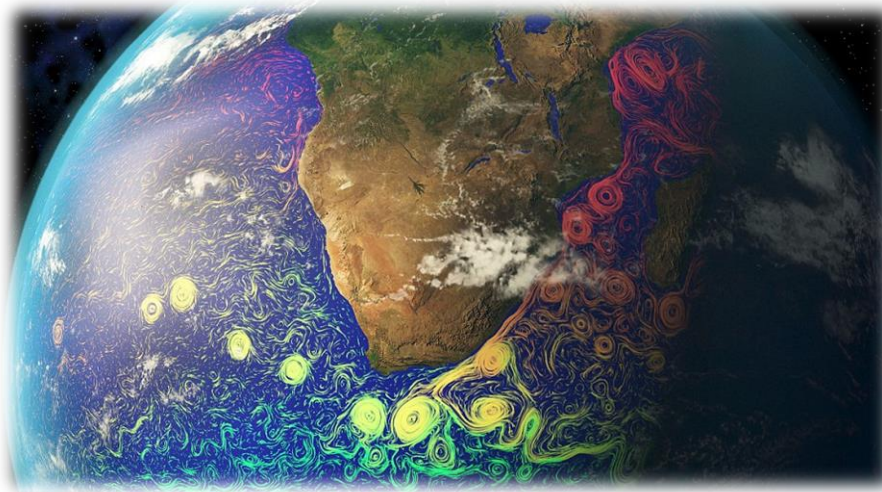




**ICEMASA**  
International Centre for Education,  
Marine and Atmospheric Sciences  
over Africa



# The Ocean Science Days in the Cape

Kelvin Grove Club & Sports Science Institute, Newlands

Cape Town, South Africa

23<sup>rd</sup> – 26<sup>th</sup> October 2018



## Background

Over the past decade, the Marine Research Institute (Ma-Re) at the University of Cape Town has established a strong and successful international partnership in ocean sciences with France through the International Joint Laboratory ICEMASA, and Norway through the Nansen-Tutu Centre (NTC). To celebrate the successful conclusion of ICEMASA mandate in 2018, while Ma-Re and NTC are continuing, it looks appropriate to showcase the major progress in ocean sciences, which have been accomplished through and facilitated by this tripartite international collaboration. It is also timely to reflect on new directions for ocean science research in the decade to come.

The **Ocean Science Days in the Cape** are designed to serve this purpose.

## Registration

The registration to this scientific event is free of charge. You are invited to register on the web page:

<http://www.ma-re.uct.ac.za/icemasa-ocean-science-days>

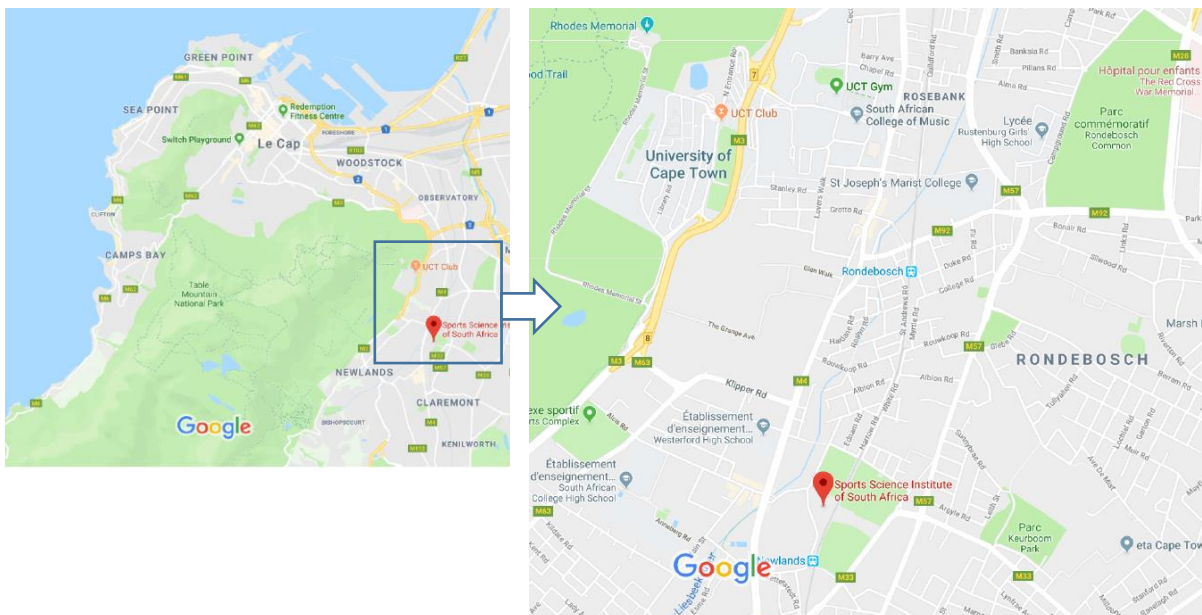
Finger lunch will be provided to participants for the duration of the colloquium.

## Venue

On Tuesday 23rd October only, the colloquium will take place at **Kelvin Grove Club**, 144 Campground Road, Newlands <https://kelvingrove.co.za/>.

From Wednesday 24th to Friday 26th October, the venue will be the **Sports Science Institute (SSISA)** of South Africa, Boundary Road, Newlands, Cape Town. The SSISA is situated next to the Newlands Rugby Stadium. There will be free (nearby but offsite) parking at **Kelvin Grove** (entrance on Campground Road). The venue is within 200m of Newlands Railway Station. It is about 30 minute walk from UCT middle campus.

SSISA is shown on a map below, by the red pin drop:



## Opening session

“The Ocean Science Days in the Cape” will be officially opened by Prof Susan Bourne, Dean of Science of the UCT, M. Ashley Naidoo, Chief Director of Oceans & Coasts, DEA, Ms Elisabeth Barbier, Deputy CEO of IRD, and M. Jean-Paul Toutain, Attaché for Science and Technology at the French Embassy in Pretoria. The opening session will take place on Tuesday 23 October at 11.30 am.

## **Presentations**

The total duration for each presentation is 20 minutes. It is recommended that the talks do not exceed 15 mn to allow time for questions.

## **Weather**

October falls within the spring season in Cape Town, which means the resort is warmer and drier than in previous months. October is also known for clearer skies and stronger sunlight than during the preceding months. The average day temperature lies between 16°C and 21°C, but cooler nights can be expected. Visitors should prepare by packing a jacket or jumper for the evening meal and after. October sees very little rain in the area (average of 9 rainy days over the month).

## **Eating out**

There are a variety of restaurants and take-away establishments in the suburbs surrounding the venue (Rondebosch, Newlands, Claremont), and a large selection available in the city centre and V&A Waterfront.

**Contact details:** General queries before and during the event can be directed to Sharon Bosma, Marine Research Institute at the following email address [Sharon.bosma@uct.ac.za](mailto:Sharon.bosma@uct.ac.za)

## **Acknowledgements**

Sharon Bosma (organisation and logistics)  
Sven Ragaller (web support)  
French Embassy in South Africa (sponsoring)  
All presenters

# PROGRAMME

## Tuesday 23rd October 2018

11:30 - 12:15 Opening session by Prof Susan Bourne, Dean of Science of the UCT, M. Ashley Naidoo, Chief Director Oceans & Coasts, DEA, Ms Elisabeth Barbier, Deputy CEO, IRD, and M. Jean-Paul Toutain, Attaché for Science and Technology, French Embassy in Pretoria

12:30 FINGER LUNCH

### Session 1 - New challenges in fisheries management

Chair: Prof Coleen Moloney

14:00 Indicators for the Seas (IndiSeas): a French-South African initiative

Lynne Shannon (UCT)

14:25 Is Climate Change Impacting South Africa's Marine Fisheries?

Stephen Lamberth (DAFF)

14:50 From English Channel discard ban to Benguela pelagic fisheries: an inquiry into the added value of a more complex representation of ecosystem-fishers interactions

Pierre Bourdaud (UCT)

15:15 TEA / COFFEE BREAK

15:35 Variability of species' trophic level – does it matter? \*

Jodie Reed

16:00 Continuing to support of ecosystem-based management: where to from here

Lynne Shannon (UCT)

16:25 End of Day 1

## Wednesday 24th October 2018

### Session 2 - Understanding regional patterns and variability

Chair: Dr Issufo Halo

09:00 Role of the Agulhas current on South African climate \*

Arielle Nkwinkwa Njouodo

09:25 Upscaling effects of mesoscale wind/SST interactions on Southern Africa atmospheric circulation

Fabien Desbiolles (UCT)

09:50 Spatio-temporal features of the Agulhas current variability

Julie Deshayes (CNRS)

10:15 Lagrangian pathway in the southern Benguela upwelling system \*

Moagabo Ragoasha

10:40 TEA / COFFEE BREAK

11:10 Shelf-edge processes in the southern Benguela

Jennifer Veitch (SAEON)

11:35 Inertial oscillations in St Helena Bay and implications for tracer dynamics \*

Giles Fearon

12:00 Eddies in the greater Agulhas Current system

Pierrick Penven (IRD)

12:25 A new definition of the South-East Madagascar Bloom and analysis of its variability \*

Fehmi Dilmahamod  
(by skype)

12:50 FINGER LUNCH

14:00 Variability in the Benguela Upwelling System and connection with the equatorial dynamics

Serena Illig (IRD)

### Session 3 - Novel modelling approaches

Chair: Dr Jennifer Veitch

14:25 A coupled biogeochemical model in the Great Agulhas system

Julie Deshayes (CNRS)

14:50 Descent in scale in the modelling of the Benguela upwelling system

Steven Herbette (UBO)

15:15 TEA / COFFEE BREAK

15:35 APECOSM modelling of anchovies in the Benguela \*

Nandipha Mhlongo

16:00 Machine learning as a tool to fill the gap in our understanding and ability to model CO<sub>2</sub> in the Southern ocean

Luke Gregor (CSIR)

16:25 Future modelling projects for the Benguela

Y. Shin, O. Maury (IRD)  
and M. Vichi (UCT)

16:50 End of Day 2

**Thursday 25th October 2018****Session 4 - Southern Ocean****Chair: Prof Marcello Vichi**

09:00	Biogeochemical controls on the sources and chemical composition of Southern Ocean marine aerosols	Katye Altieri (UCT)
09:25	How do contemporary model seasonal cycle biases influence long term projections of CO2 fluxes in the Southern Ocean *	Precious Mongwe
09:50	The upper ocean nitrogen cycle in the Atlantic Southern Ocean	Sarah Fawcett (UCT)
10:15	Trace metal Fe in the SO	Thato Mtshali & Natasha van Horsten (CSIR)
10:40	TEA / COFFEE BREAK	
11:10	Air-sea interactions in the Marginal Ice Zone *	Ehlke De Jong

**Session 5 - Seamounts ecosystems****Chair: Dr Francis Marsac**

11:35	Hydrological processes at seamounts	Jean-François Ternon (IRD)
12:00	Mesoscale variability of plankton in the SWIO - is there a seamount effect?	Margaux Noyon (NMU)
12:25	Micronekton distribution and assemblages at two shallow seamounts of the South West Indian Ocean *	Pavane Annasawmy
12:50	FINGER LUNCH	

**Session 6 - Ecosystem research in the East and South coasts of South Africa****Chair: Prof Michael Roberts**

14:00	Recent ORI research activities on the South African east coast and in the WIO	Sean Fenessy (ORI)
14:25	Zooplankton diversity, abundance and biovolume distribution in the WIO region. Insight from the contribution to the ACEP, FAO-NANSEN, IIOE2, and Seamount projects	Delphine Thibault (IRD)
14:50	Providing research platforms and infrastructure in support of risk and vulnerability studies	Shaun Deyzel (SAEON)
15:15	TEA / COFFEE BREAK	
15:40	Current and proposed marine research programmes at the University of Fort Hare, Eastern Cape	Niall Vine (or alternate) (UFH) , by skype
16:00	The advantages of system dynamics models in decision-support for integrated ocean management	Mandy Lombard (NMU)
16:25	ACEP - Value proposition and where to next	Angus Paterson (SAIAB)
16:50	End of Day 3	

**Friday 26th October 2018****Session 7 - Way forward****Chairs: F. Marsac/M.Vichi**

09:00	SEAmester - South Africa's Floating University	Sarah Fawcett (UCT)
09:25	WIOURI-IIOE2 2016-26: A unifying dynamism for marine ecosystem functioning in the WIO - achievements and future projects	Michael Roberts (NMU)
09:50	The ILOSA and SASOST projects	Marcello Vichi (UCT) & Francis Marsac (IRD)
10:15	Governmental strategies for Marine Science research and training	Gilbert Siko (DST)
10:40	TEA / COFFEE BREAK	
11:10	Open discussion based on the 3 morning talks and the outcomes of the 3 days colloquium. Invited stakeholders to participate.	
13:00	Closing remarks	
	FINGER LUNCH	

\* Talks given by Masters students or PhD candidates from UCT, SUN, UBO, UM.