Highlights 2010–2015

Nansen-Tutu Centre for Marine Environmental Research

Cape Town, South Africa

Hosted at the Department of Oceanography and the Marine Research Institute at the University of Cape Town







Patrons

The Nansen-Tutu Centre is named in honour of the Nobel Peace Laureates Desmond Tutu and Fridtjof Nansen

1888 – Received doctorate in Zoology from the University of Bergen

1888 – First to cross Greenland on skis

1893 to 1896 – sailed and skied across the Arctic Ocean

1897 – Professor in Oceanography at the University of Oslo

1919 – First High Commissioner for refugees

1922 – Awarded Nobel Peace Prize for humanitarian work



1861-1930



Born 1931

1954 – Received degree in Teaching from the Pretoria Bantu Normal College

1960 – Ordained as a priest in the Anglican Church

1966 – Received MSc in Theology from King's College London.

1976 – Bishop of Lesotho

1978 – Secretary-General of the South African Council of Chruches

1984 – Awarded the Nobel Prize for Peace.

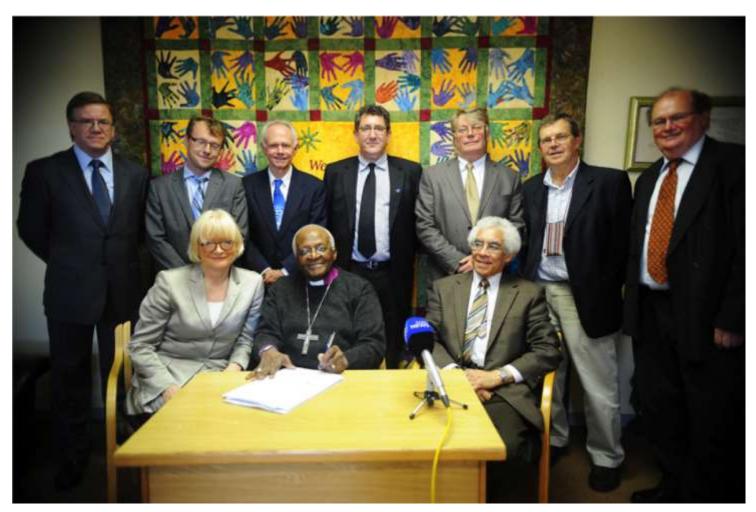
1986 – Archbishop of Cape Town

1994 – Chair of the Truth and Reconciliation Commission

Vision

The vision of the Nansen-Tutu Centre for Marine Environmental Research is to serve Africa through advancing knowledge of the marine environment and climate system in the spirit of Nobel Peace Laureates Desmond Tutu and Fridtjof Nansen.

Inauguration: 20 May 2010



From the foundation ceremony of the Nansen-Tutu Centre for Marine Environmental Research in Cape Town in May 2010. First row from the left: Prof Berit Rokne, Achbishop Desmond Mpilo Tutu and Prof George Philander. Second row from the left: Ambassador Tor Chr. Hildan, Prof Johnny A. Johannessen, Prof Frank Shillington, Dr Neville Sweijd, Mr Hans Erstad, Prof John Field and Dr Lasse Pettersson.

"Partners" (people work with)





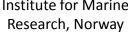
Marine Research Institute Department of Oceanography University of Cape Town



Nansen Environmental and Remote Sensing Center, Norway









Council for Scientific and Industrial Research

Cape Peninsula University of Technology







University of Bergen, Norway





environmental affairs Department: Environmental Affairs







The Board

As of 2015

- Prof F. Shillington, Ma-Re Institute (Co-Chair)
- Prof J.A Johannessen, NERSC (Co-Chair)
- Dr N. Sweijd, ACCESS
- Dr Stewart Bernard, CSIR
- Prof N.G. Kvamstø, Geophysical Institute, University of Bergen
- Prof G. Philander, Princeton University.
- Prof O.M. Johannessen, Nansen Scientific Society
- Prof Å. Bjordal, IMR, Bergen, Norway
- Dr A. Naidoo, Oceans and Coasts, Dept. Environmental Affairs
- J. Stander, SA Weather Service
- Prof W. Bond, South African Environmental Observation Network (SAEON)
- Dr Francis Marsac (ICEMASA)

Research Groups

The Centre's research activities are grouped into 4 overarching themes:

1. Ocean modelling and prediction.

Group coordinator: Bjorn Backeberg (CSIR/NTC/NERSC),

Co-investigators: Marcello Vichi (NTC/UCT), Issufo Halo (CPUT), Charine Collins (SAEON), Johnny A.

Johannessen (NERSC), Francois Counillon (NERSC) and Annette Samuelsen (NERSC).

2. Ocean-atmosphere, climate and regional impact.

Group coordinator: Mathieu Rouault (NTC/UCT)

Co-investigators: Noel Keenlyside (UiB), Marek Ostrowski (IMR)

3. High resolution satellite remote sensing of the regional shelf seas.

Group coordinator: Marjolaine Krug (CSIR)

<u>Co-investigators</u>: Christo Whittle (CSIR), Wayne Goschen (SAEON), Johnny A. Johannessen

(NERSC), Morten Hansen (NERSC), Anton Korosov (NERSC)

4. Regional sea level variability and global change.

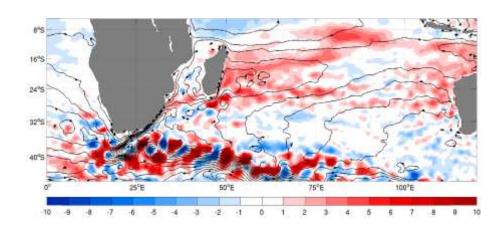
<u>Group coordinator</u>: Frank Shillington (NTC/UCT)

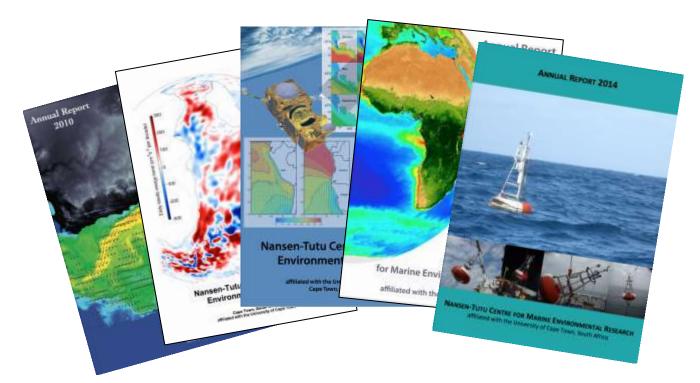
Co-investigators: Ola Johannessen (NERSC)

Research Highlights

Publications since 2010

Journal publications: 50
Book chapters: 4
Conference proceedings: 15
Popular articles: 5
Reports: 2
Total: 76





Including in Nature Climate
Change on "Intensification of
the subtropical Indian Ocean
gyre and impacts on the
Agulhas Current system"

Funding 2015

Seed funding from Norwegian partners

- 1. NERSC: 300 000 NOK (±510 000 ZAR) per annum
- 2. NSS: 223 529 NOK (±380 000 ZAR) per annum

In 2015 used for:

- Prof Frank Shillington stipend
- Associate Prof Mathieu Rouault salary (50%)
- Dr Bjorn Backeberg salary (20%)
- Dr Issufo Halo: Post-doctoral research fellow (100%)
- Dr Charine Collins: Post-doctoral research fellow (20%)
- 3 PhD bursaries, 1 MSc bursaries
- Travel support for staff, associates and students
- Running costs
- Hosting of workshops
- Leveraged ±3 300 000 ZAR in project funding to support research and student activities

Funding 2014/2015

Project funding

- 1. The role of the Southern Ocean carbon cycle under climate change (SOCCLI): EU FP7 project.
- 2. Seasonal to decadal Changes Affecting Marine Productivity: an Interdisciplinary investigation (SCAMPI): SA-Norway bilateral project.
- 3. Role of the Ocean on Climate: SA Water Research Commission project.
- 4. Enhancing prediction of Tropical Atlantic cliamte and its impacts (PREFACE): EU FP7 project.
- 5. South Atlantic Meridional Overturning Circulation SA (SAMOC): SA NRF SANAP project.
- 6. Ocean data assimilation in support of marine research and operational oceanography in South Africa: SA NRF project.
- 7. Developing African capacity in operational ocean prediction and reanalysis: SA NRF project.
- 8. GlobCurrent: ESA project.
- 9. Anchor Environmental consulting project
- 10. ExxonMobil consulting project

Funding 2014/2015

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- 1. The role of the Southern Ocean carbon cycle under climate change (SOCCLI): EU FP7 project.
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- 9. Anchor Environmental consulting project
- 10. ExxonMobil consulting project

With Norwegian partners

NTC Staff and Students in 2015

Seed funding used for

Project funding used for

Full - and part-time staff





Assoc Prof Marcello Vichi



Dr Björn Backeberg



Assoc. Prof. Mathieu Rouault



Dr Issufo Halo



Dr Charine Collins

Financial Manager



Mr Emlyn Balarin

Research associates



Dr Marjolaine Krug (Assoc. Res.)



Dr Wayne Goschen (Assoc. Res.)



Mr Christo Whittle (Assoc. Res.)



Prof. Frank Shillington (Assoc. Res.)



Prof Johnny Johannessen (Assoc. Res.)



Dr Annette Samuelsen (Assoc. Res.)



Dr Francois Counillon (Assoc. Res.)



Dr Morten Dr Anton Hansen Korosov (Assoc. Res.) (Assoc. Res.)

Students





(MSc)





Tharone Rapeti (MSc)



Mr Bernadino Rodrigue Nhantumbo Anicet (PhD) (PhD)



Neil Malan (PhD)



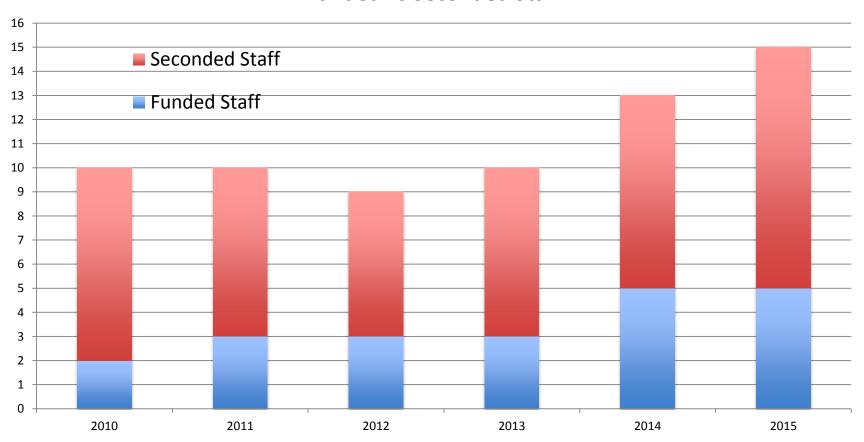
Geoges Noel (PhD)



Arielle Stella (PhD)

Staff

Funded vs Seconded Staff



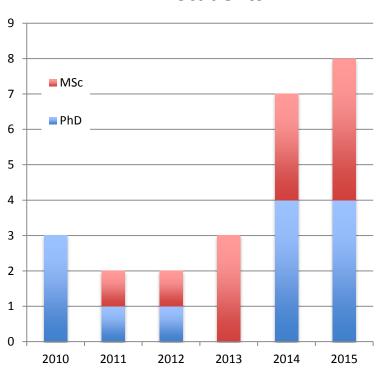
Students supported

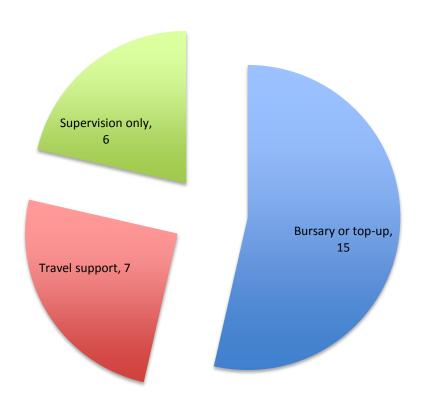
2010-2015

PhDs: 13 MScs: 12

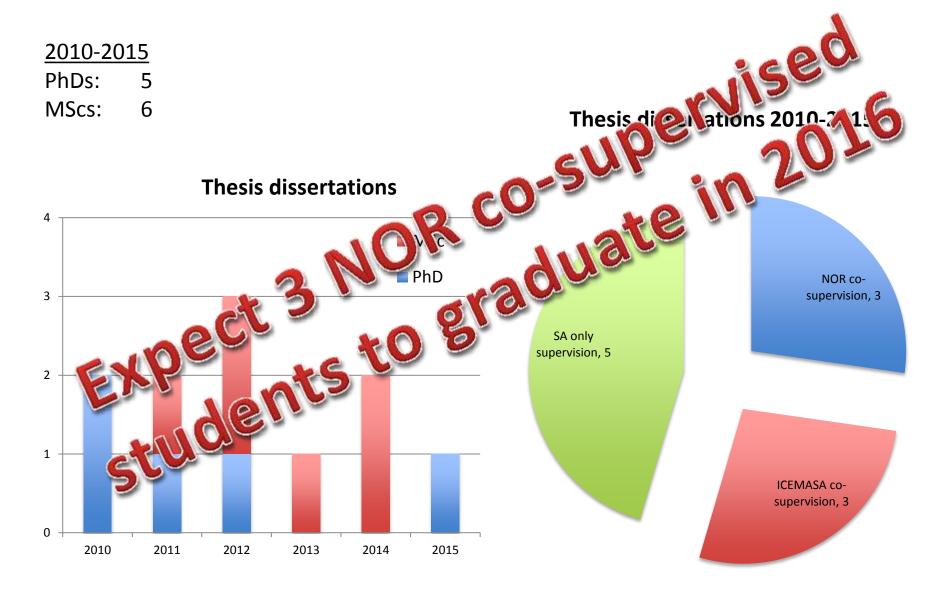
PhD & MSc student support type

Students





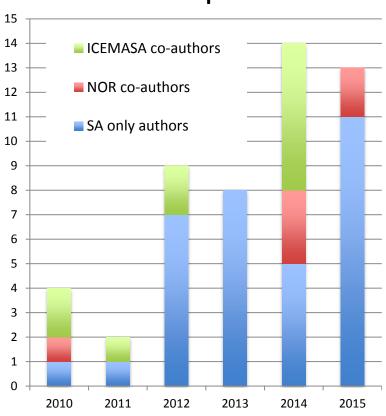
Students graduated / theses



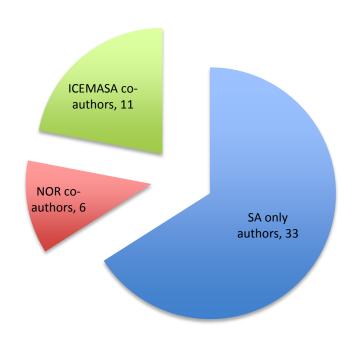
Journals and Book Chapters

Journal publications: 50 Book chapters: 4

Peer-reviewed publications



2010-2015 Peer-reviewed publications



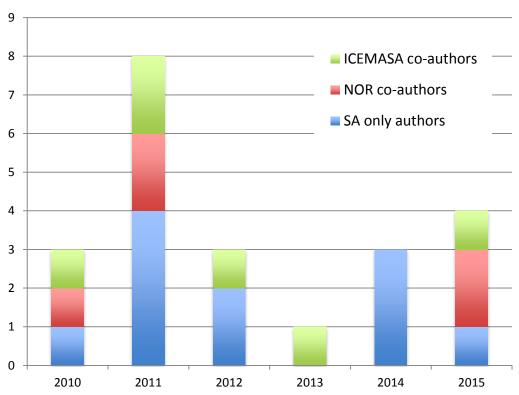
Conference proceedings, popular articles and reports

Conference proceedings: 15

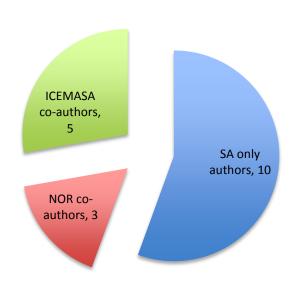
Popular articles: 5

Reports: 2

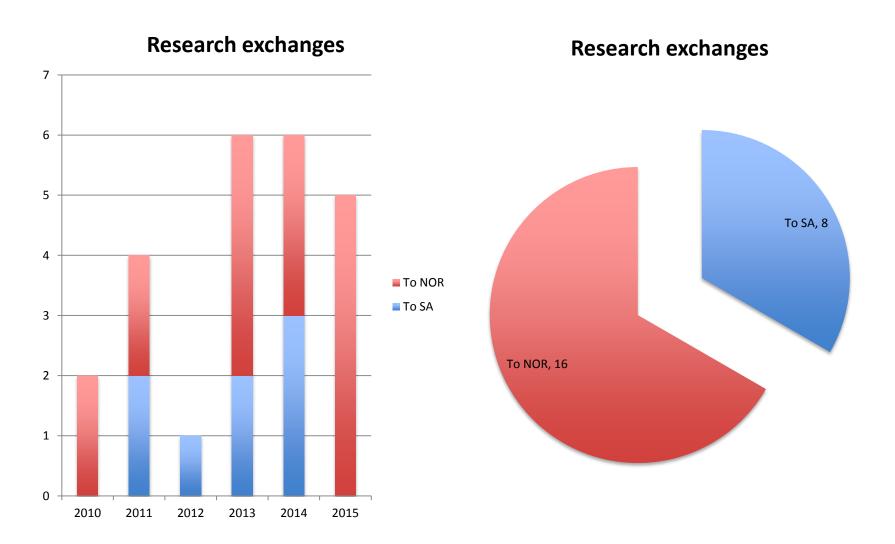
Conference proceedings, popular artilces & reports



2010-2015 Conference proceedings, polular articles & reports



International Activities



NTC Workshops & Summer Schools

- 1. NTC Scientific Opening Symposium Cape Town, 7-9 December 2010
- African Operational Oceanography Workshop Cape Town, 9 June – 1 July 2011
- 3. Ocean, Climate and Space Colloquium Cape Town, 7 December 2012
- 4. Intergovernmental Oceanographic Commission of UNESCO, Summer School on Application of Ocean Coastal Data and Modelling products

 Accra, 9 13 June 2014
- 5. NTC Summer School on Ocean, Climate and Marine Ecosystem Cape Town, 1 8 December 2014
- 6. PIRATA-PREFACE-CLIVAR Tropical Atlantic Variability Conference, 24-28 August 2015

Priorities for 2016

- Finalise Phase III and launch
- Continue to support current cohort of 4 PhD students
- Provide opportunities for current cohort of MSc (expect 4 MSc students to graduate soon)
- Research exchanges
- Finalise research papers with Norwegian partners
- Projects and proposals
 - 1. DST Ocean Energy Spoke proposal: NTC Stellenbosch University CSIR collaboration.
 - 2. PEER, USAID proposal: CSIR NTC FSU/COAPS collaboration.
- Formalise institutional collaborations (MoUs) e.g. CSIR, DEA, SAWS, ...
- Transfer of knowledge through internships with partners!!

Please visit our webite: www.nansen-tutu.org

