



SOUTHERN OCEAN AND CLIMATE
FIELD STUDIES WITH INNOVATIVE TOOLS

Collaborations

USA - SOCCOM

Hervé Claustre



SOCCOM

Unlocking the mysteries of the Southern Ocean

SOCCOM is launched!

The SOCCOM project has been awarded funding from the National Science Foundation and was officially launched on September 9, 2014.



SEARCH SOCCOM

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Latest News



Southern Ocean Town Hall at AGU

Join us on Dec. 14th to discuss SOCCOM and other progress

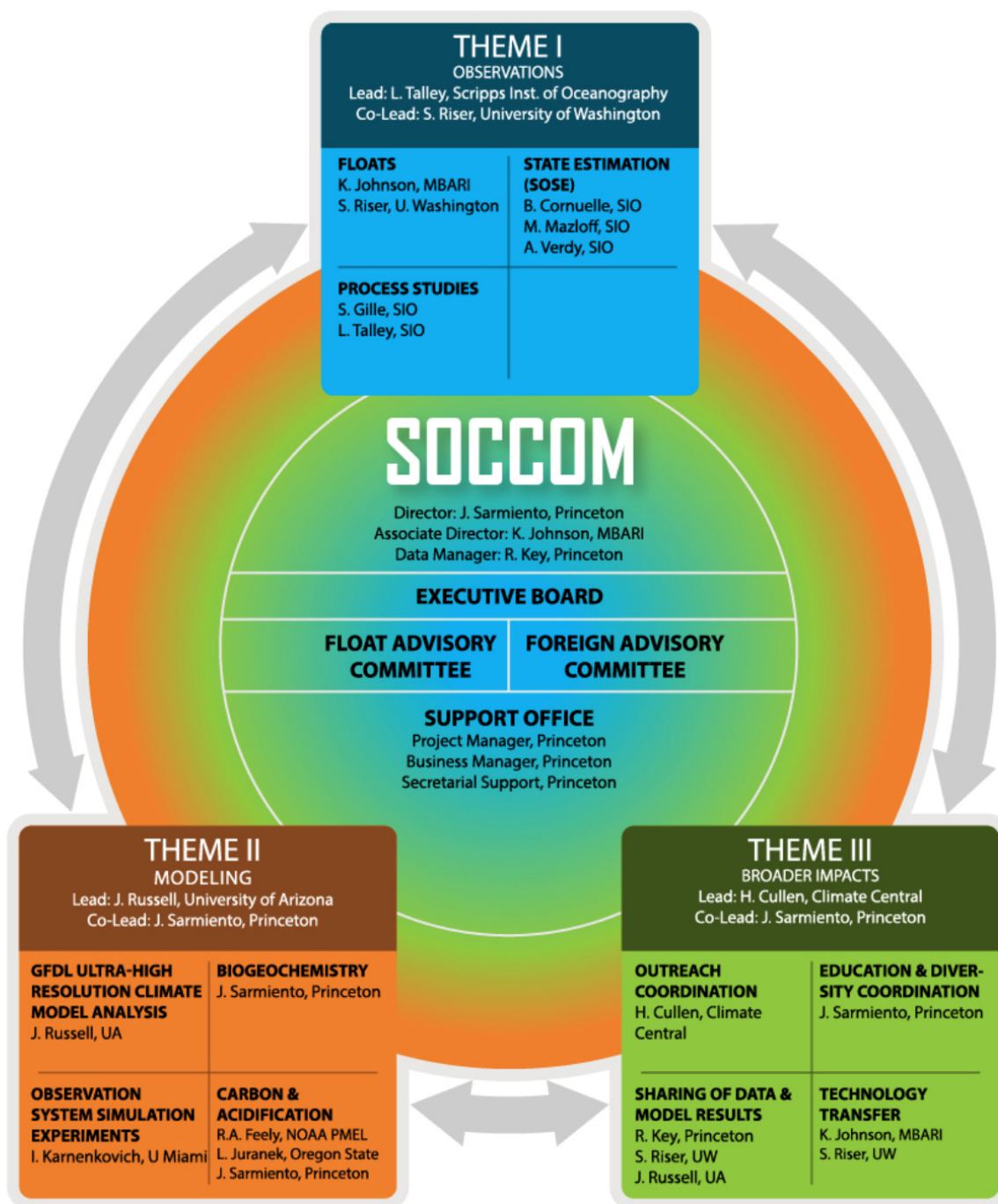


SOUTHERN OCEAN CARBON AND CLIMATE OBSERVATIONS AND MODELING

The Southern Ocean Carbon and Climate Observations and Modeling project (SOCCOM) is an NSF-sponsored program focused on unlocking the mysteries of the Southern Ocean and determining its influence on climate.

Housed at Princeton University and administered by the [Princeton Environmental Institute](#), SOCCOM draws on the strengths of teams of investigators across the U.S. as well as participating in international observational and simulation efforts.

<http://socom.princeton.edu>



THEME I

OBSERVATIONS

Lead: L. Talley, Scripps Inst. of Oceanography
Co-Lead: S. Riser, University of Washington

FLOATS

K. Johnson, MBARI
S. Riser, U. Washington

STATE ESTIMATION (SOSE)

B. Cornuelle, SIO
M. Mazloff, SIO
A. Verdy, SIO

PROCESS STUDIES

S. Gille, SIO
L. Talley, SIO

SOC COM

Director: J. Sarmiento, Princeton
Associate Director: K. Johnson, MBARI
Data Manager: R. Key, Princeton

EXECUTIVE BOARD

FLOAT ADVISORY COMMITTEE

FOREIGN ADVISORY COMMITTEE

SUPPORT OFFICE

Project Manager, Princeton
Business Manager, Princeton
Secretarial Support, Princeton

THEME II

MODELING

Lead: J. Russell, University of Arizona
Co-Lead: J. Sarmiento, Princeton

GFDL ULTRA-HIGH RESOLUTION CLIMATE MODEL ANALYSIS

J. Russell, UA

BIOGEOCHEMISTRY

J. Sarmiento, Princeton

OBSERVATION SYSTEM SIMULATION EXPERIMENTS

I. Karnenkovich, U Miami

CARBON & ACIDIFICATION

R.A. Feely, NOAA PMEL
L. Juranek, Oregon State
J. Sarmiento, Princeton

THEME III

BROADER IMPACTS

Lead: H. Cullen, Climate Central
Co-Lead: J. Sarmiento, Princeton

OUTREACH COORDINATION

H. Cullen, Climate Central

EDUCATION & DIVERSITY COORDINATION

J. Sarmiento, Princeton

SHARING OF DATA & MODEL RESULTS

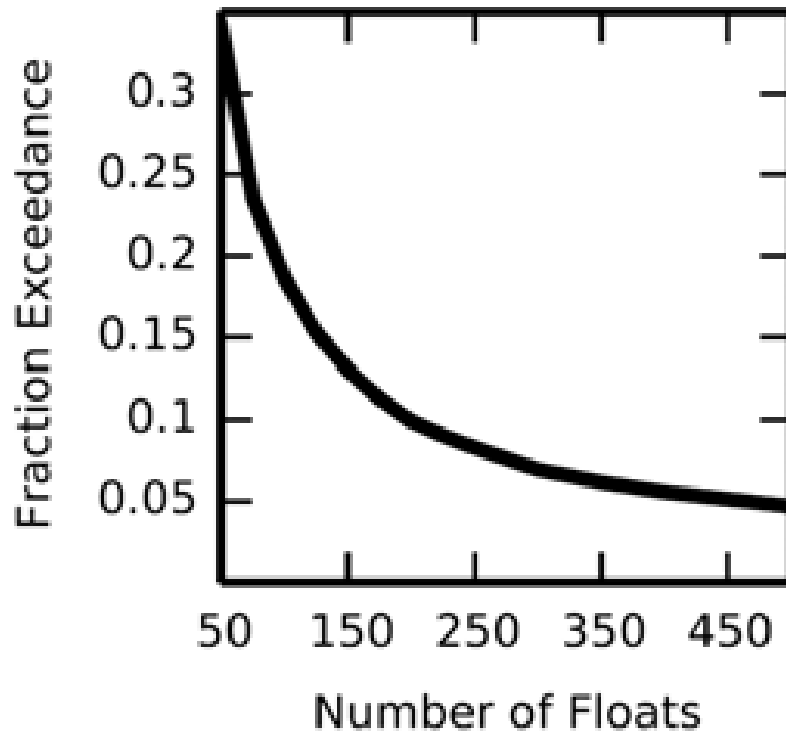
R. Key, Princeton
S. Riser, UW
J. Russell, UA

TECHNOLOGY TRANSFER

K. Johnson, MBARI
S. Riser, UW

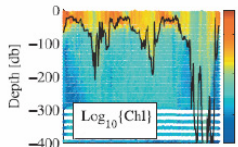
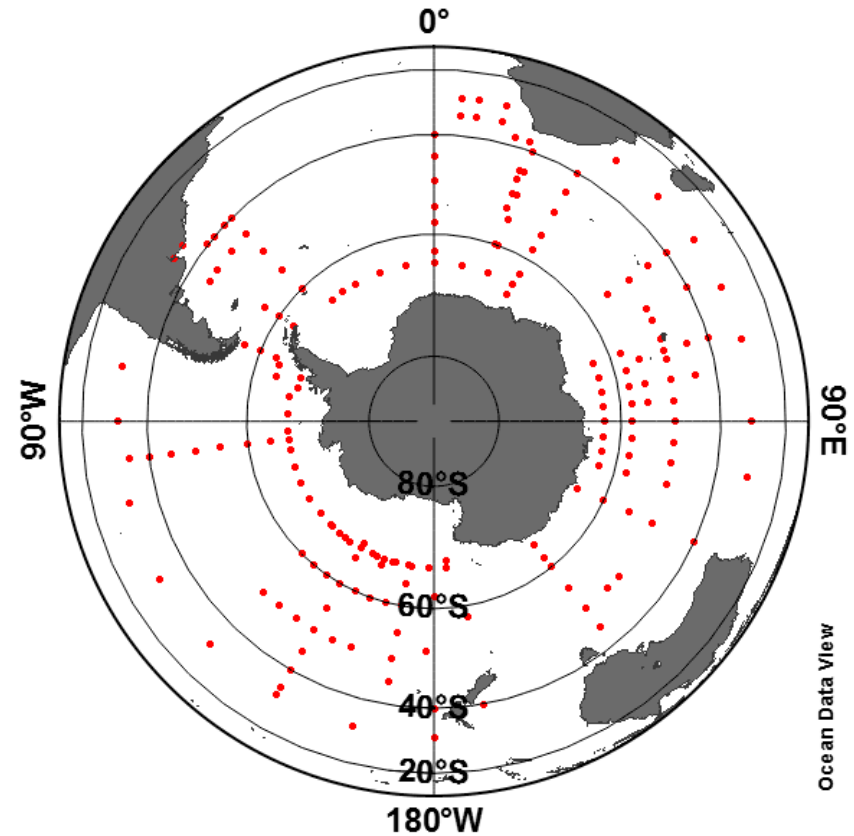
Observing System Simulation Experiments

Fraction of Southern Ocean area where the error in monthly air sea flux estimate exceeds $1 \text{ mol m}^{-2} \text{ yr}^{-1}$ as a function of the number of floats.



Joe Majkut, Princeton

SOCOM 185 floats All seasons

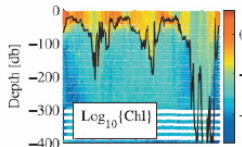


BioArgo
Global Biogeochemistry



Southern Ocean Carbon & climate Observations & Modeling (SOCOM)

- 185 (+ 13) floats with pH, oxygen, nitrate (separate NASA proposal for biooptics) throughout Southern Ocean
- 50% NOAA contribution of basic floats.
- Integrated modeling/state estimate program
- All data in public domain in real time following Argo paradigm



BioArgo
Global Biogeochemistry

Pistes de possibles collaborations avec SOCCOM

- Optimisation / coordination des déploiements flotteurs
- Coordination des « process cruises » (?)
- mise en ligne sur la carte OAO du LOV des flotteurs
SOCCOM = avoir une vision globale de l'observation « flotteur » (mais pas que) dans l'Austral (en discussion)
- Emmanuel BOSS: PI NASA de SOCCOM pour bio-optique sur flotteur [$b_b(700)$, Chla on floats] : 1-year sabbatical in Villefranche (starting september 2015)
- Outreach – public - scolaire
 - Partage / échange des ressources / traductions autour de MOM
 - Concept « adopt a float » « adopté » par SOCCOM

SOCCOM bi-weekly webinars



SOCCOM

Southern Ocean Carbon and Climate Observations and Modeling

Dear hervé,

This is a reminder that "SOCCOM Bi-Weekly Webinar" will begin in 2 Hours on:

Fri, Oct 24, 2014 1:30 PM - 2:30 PM EDT

[Add to Calendar](#)

Please send your questions, comments and feedback to: hotinski@princeton.edu

This week's seminar:

"A float study of phytoplankton blooms in the Nordic Seas"
Raffaele Ferrari, MIT