

## 6<sup>th</sup> FAMOS School and Meeting

### AGENDA

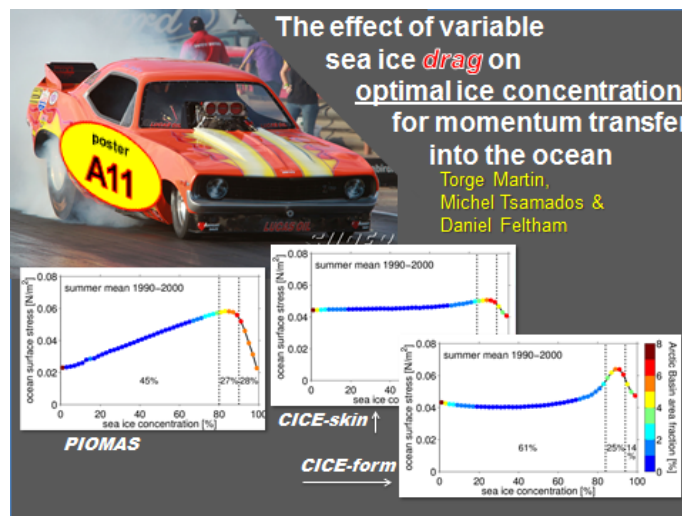
## Important information for meeting participants

**NOTE # 1: Oral presentation time = 12 minutes + 3 minutes for questions (AGU style)**

**NOTE #2: All Posters will be displayed on Wednesday. Poster size: width - no wider than 3 feet (91 cm); height - no longer than 5 feet (152 cm)**

**NOTE #3 1- slide – 1 – minute presentation slide example is shown below.**

We ask that you prepare an introduction to your poster on **ONE SLIDE** with **NO ANIMATION**. We will have one-minute summary presentations by each poster presenter in the afternoon before the poster sessions. This is intended to give a sneak peek of your work and main results, and **NOT** to explain everything on your poster!! Just give them a hint or the main result, i.e. do not over-crowd your slide with too much material. Please see the example below.





*Monday, October 23, 2017*

**19:00 Icebreaker Night - All are invited to gather and enjoy food & drinks at:**

**Liam Macguire's Irish Pub & Restaurant  
(273 Main Street, Falmouth),**

- **Note that this event is not sponsored (i.e. payments are on your own).**
- **Students: please bring your ID card.**



***Tuesday, October 24, 2017***

**2017 School for young scientists**

***Redfield auditorium on Water Street in Woods Hole***

**08:15 – 09:00 Transportation from hotels to Redfield auditorium**

**08:30 - 09:00 Coffee**

**09:00 - 09:30 Introductions** from Mike Steele and students/postdocs

**09:30 - 10:15 Ian Eisenmann:** Analytic and simple models

**10:15 - 11:00 Jiayan Yang:** Complex models + simple geometry

**11:00 - 11:30 Coffee**

**11:30 - 12:15 Glen Liston:** Snow models

**12:15 - 13:45 Lunch** (on your own)

**13:45 - 14:05 Mike Steele:** Intro to Geoengineering

**14:05 - 14:25 Steve Desch:** Geoengineering Arctic sea ice

**14:30 - 15:30 Student breakouts & plenary:** Geoengineering the Arctic

**15:30 - 16:00 Coffee**

**16:00 - 16:45 Mike Spall:** Models + eddies

**16:45 - 17:30 Till Rasmussen:** Regional coupled Arctic models

**18:00 Gather at the ferry to Martha's Vineyard (depart 18:15)**

**19:00 Arrive Vineyard Haven, Black Dog Tavern restaurant**

**21:30 Depart Vineyard Haven**

**22:15 Arrive Woods Hole, transportation to hotels**



***Wednesday, October 25, 2017***

***Redfield auditorium on Water Street in Woods Hole***

**07:45 – 08:30 Transportation from hotels to Redfield auditorium**

**08:00 – 08:30 Coffee**

**08:30 – 08:45 Proshutinsky Andrey and Steele Mike:** Introduction and instructions for working groups

**SESSION 1: Sea ice observations and modeling** (Conveners: T. Martin and A. Bouchat)

**08:45 – 09:15 Dukhovskoy Dmitry:** 2017 sea ice conditions and results of 2016 sea ice outlook

**09:15 – 09:30 Schweiger, Axel:** SIDFEx: The Sea Ice Drift Forecast Experiment

**09:30 – 09:45 Tremblay, Bruno:** The dependence of energy dissipation and sea-ice mechanical properties on spatial resolution in a viscous-plastic model

**09:45 – 10:00 Itkin, Polona:** Direct observations of atmosphere – sea ice – ocean interactions during Arctic winter and spring storms

**10:00 – 10:15 Coffee**

**10:15 – 11:00 Panel discussion:** What is going on with sea ice? Why is it not disappearing as predicted? How to improve sea ice predictions at different temporal and spatial scales? (T. Martin, A. Schweiger, A. Kazlova, M. Bushuk, F. Dupont, B. Tremblay)

**SESSION 2: Bio-geo-eco systems coordinated experiments**  
(Conveners: C. Ashjian and G. Castellani)

**11:00– 11:15 Castellani, Giulia:** Multi-decadal simulation of Arctic sea-ice algae: what can we learn from the past?

**11:15 – 11:30 Jin, Meibing:** Effects of model resolution and vertical mixing on the ice-ocean physical and biogeochemical simulations in the Regional Arctic System Model (RAS)

**11:30 – 11:45 Terhaar, Jens:** Anthropogenic carbon in the Arctic Ocean

**11:45 – 12:00** Lowry, Kate: Under-ice phytoplankton bloom dynamics controlled by spring convective mixing in refreezing leads of open water

**12:00 – 13:15** Lunch (on your own)

**13:15 – 14:00** Panel discussion (Z. Feng, C. Ashjian, G. Castellani, V. Schourup – Khristensen, C. Schultz): Where are we with synthesizing biogeochemical observations and modeling? What processes are we missing in the modeling of atmosphere-ice-ocean-ecosystem system that would be relevant to assess climate change impacts?

**14:00 – 14:45** One-slide poster presentations

**14:45 – 15:00** Coffee

**15:00 – 15:30** One-slide poster presentations (continuation)

**15:30 – 16:00** Relocation to poster session room (Clark 507, Quissett Campus)

**16:00 – 17:00** Poster Session 1: All even numbers

**17:00 – 18:00** Poster Session 2: All odd numbers

**18:00 – 20:00** Reception (Clark 507, Quissett Campus)

**20:00** Day 1 meeting adjourn and transportation to hotels



***Thursday, October 26, 2017***

***Redfield auditorium on Water Street in Woods Hole***

**07:45 – 08:30 Transportation from hotels to Redfield auditorium**

**08:00 – 08:30 Coffee**

**SESSION 3: Coordinated experiment: “Arctic climate response functions (CRF)”** (Conveners: J. Marshall and L. Smedsrud)

**08:30 – 08:45 Marshall, John:** CRF coordinated experiments: goals, tasks and first results

**08:45 – 09:00 Cornish, Sam:** Response of Arctic freshwater to a step change in atmospheric circulation across the CMIP5 ensemble

**09:00 – 09:15 Kovacs, Tamas:** Climate response functions of the joint freshwater budget of the Arctic and North Atlantic oceans to changes in external wind forcing in an otherwise fully coupled earth system model

**09:15 – 09:30 Smedsrud, Lars H.:** Simulating variability in the Fram Strait sea ice export and related Arctic sea ice response

**09:30 – 09:45 Coffee**

**09:45 – 10:30 Panel discussion: (J. Marshall, L. Smedsrud, J. Scott, S. Cornish, R. Gelderloos, T. Kovacs)** How to improve understanding of Arctic change processes, their reconstructions and predictions based on CRF approach? What is a level of uncertainties in CRF studies? How to employ CRFs approach to the ecosystem studies?

**10:30 - 10:45 Working group reports: 2016-2017**

**10:45 – 11:45 Working groups meetings (1)**

**11:45 – 13:00 Lunch** (on your own)

**SESSION 4: Coordinated Experiments: Freshwater fluxes and Gyres**  
(Conveners: D. Dukhovskoy and G. Manucharyan)

**13:00 – 13:15 Dukhovskoy, Dmitry:** Freshwater pathways in the Arctic Ocean and North Atlantic from numerical experiments with passive tracers

**13:15 – 13:30 Martin, Torge:** Enhanced Greenland melting: Effect of mesoscale ocean dynamics on distribution, timing and impact

**13:30 – 13:45 Myers, Paul:** Modelling Greenland icebergs: pathways and freshwater contribution

**13:45 – 14:00 Manucharyan, Georgy:** The influence of continental slopes on eddy and freshwater dynamics of the Beaufort Gyre

**14:00 – 14:15 Coffee**

**14:15 – 15:00 Panel discussion: Arctic freshwater changes and their influence on climate change processes** (Panelists: **D. Dukhovskoy, P. Myers**, T. Martin, G. Manucharyan, C. Wekerle, M. Zhao) How significant are expected changes of climate due to potential changes of freshwater fluxes from the Arctic Ocean and Greenland? Can Greenland freshwater release cool down climate and reverse Arctic ice processes from melting to growing? What are the spatiotemporal scales of freshwater impacts on climate?

**15:00 – 16:00 Working groups meetings (2)**

#### **SESSION 4: Coordinated Experiments: Mixing**

(Conveners: M-L. Timmermans and M. Spall)

**16:00 -16:15 Nguyen, An:** Investigation of Arctic Ocean mixing in an ocean-sea ice state estimation framework

**16:15 – 16:30 Chanona, Melanie:** Variability of internal wave-driven dissipation, diffusivity, and stratification in the Canadian Arctic Ocean

**16:30 – 16:45 Spall, Michael:** Ventilation of the halocline in the Canada Basin

**16:45 – 17:00 Timmermans, Mary-Louise:** Causes and implications of a warming Canada Basin halocline

**17:00 – 17:45 Panel discussion: Physical and numerical mixing problems and solutions:** What is the role of vertical and lateral mixing in the Arctic halocline, and how can mixing processes and their influence be appropriately simulated and observed? (Panelists: **M-L. Timmermans, M. Spall**, A. Nguyen, C. Lique, S. Waterman, M. Ilicak)

**17:45 Day 2 meeting adjourn and transportation to hotels**



***Friday, October 27, 2016***  
***Redfield auditorium on Water Street in Woods Hole***

**07:45-08:30 Transportation from hotels to Redfield auditorium**

**08:00 – 08:30 Coffee**

**SESSION 5: New and developing coordinated initiatives**

**08:30 – 08:45 Luneva, Maria: Cascading**

**08:45 – 09:00 Maslowki, Wieslaw: Arctic coupled modeling**

**09:00 – 09:15 Fedorov, Alexey: Arctic ice and AMOC**

**09:15 – 09:30 Working group updates**

**09:30 – 10:30 Final working group meetings (3)**

**10:30 – 10:45 Coffee**

**10:45 – 12:30 Working group reports (10 minutes each) and plenary discussions**

**Sea ice:** T. Martin, A. Schweiger

**CRF:** J. Marshall, L. Smedsrud

**Bio-geo-eco:** Z. Feng, C. Ashjian

**Freshwater fluxes:** D. Dukhovskoy, P. Myers

**Mixing and eddies:** M-L. Timmermans, M. Spall

**Upwelling:** M. Steele, S. Kelly

**12:30 Meeting adjourns and transportation to hotels or/and bus stations**