

Connaught Summer Institute in Arctic Science: Atmosphere, Cryosphere, and Climate



Welcoming Remarks

Nottawasaga Inn, Alliston, Ontario

14-18 July 2014



Session Outline



Kimberly Strong

- Introduction
- Summer School Logistics

Zen Mariani

- Remarks from the CREATE-AAS Trainees Advisory Committee (TAC)
- Overview of the Career Panel

Everyone

- Welcoming Jamboree



Introduction



The Connaught Summer Institute in Arctic Science: Atmosphere, Cryosphere, and Climate

- New initiative to bring together students and scholars engaged in Arctic research, to provide an understanding of the Arctic climate and to establish a forum for discussion of current challenges and research opportunities
- Supported by the University of Toronto's Connaught Fund and builds on the Summer School program developed by the NSERC CREATE Training Program in Arctic Atmospheric Science (CREATE-AAS)
- Affiliated with three new networks funded by NSERC's Climate Change and Atmospheric Research program: PAHA, NETCARE, and CanSISE, and with groups at UofT engaged in lab studies of chemistry at the air-ice/snow interface and paleo-reconstructions of Arctic environments



- NSERC's Collaborative Research and Training Experience (CREATE) Program supports the training of students & PDFs
- Our **NSERC CREATE Training Program in Arctic Atmospheric Science** provides training in polar, atmospheric, and climate sciences, including the use of state-of-the-art instrumentation and analysis of large data sets
- Takes advantage of the unique capabilities of the Polar Environment Atmospheric Research Laboratory (PEARL)
- Began in April 2010 and will run for six years, to March 2016





PAHA



Probing the Atmosphere of the High Arctic

- NSERC CCAR program that is using measurements from the PEARL at Eureka, Nunavut and other sites around the Arctic to probe the atmosphere of the Canadian High Arctic and analyze the causes of observed changes
- Led by Jim Drummond (Dalhousie) and involves seven universities, Environment Canada, and international partners, including the NOAA Earth System Research Lab
- Three research themes: Composition Measurements, Polar Night, and Satellite Validation
- PEARL was established in 2005 by the Canadian Network for the Detection of Atmospheric Change (CANDAC)

CANDAC

Canadian Network for the Detection of Atmospheric Change



Network on Climate and Aerosols: Addressing Key Uncertainties in Remote Canadian Environments

- NSERC CCAR program using observations and modelling to address aerosol-climate connections in the Arctic
- Led by Jon Abbatt (UofT) and involves ten universities, EC, DFO, and three international partners
- Four research activities:
 - Activity 1: Carbonaceous Aerosol
 - Activity 2: Ice Cloud Formation and Impacts
 - Activity 3: Ocean-Atmosphere Interactions
 - Activity 4: Implications of Measurements on Simulations of Atmospheric Processes and Climate
- Busy field season: ten NETCARE scientists are on board the Canadian Coast Guard Service Amundsen and an aircraft campaign is underway based out of Resolute Bay, Nunavut



The Canadian Sea Ice and Snow Evolution Network

- NSERC CCAR program that seeks to advance our ability to predict Arctic sea ice and snow in Canada's sub-Arctic, alpine, and seasonally snow-covered regions
- Led by Paul Kushner (UofT) and involves eight Canadian universities, EC, the Canadian Ice Service, and the Pacific Climate Impacts Consortium
- It aims to exploit advances in climate observations and climate modelling that allow us to forecast these quantities over seasons, years, and even decades
- Three research areas:
 - (A) Prediction
 - (B) Climate change detection and attribution
 - (C) Process studies related to snow and sea ice and their roles in climate

Summer School Logistics



Daily

- 7-9 AM Buffet breakfast in the Riverview Dining Room
- 9 AM Lectures start **promptly** in ballroom 16
- 12:30-1:30 Buffet lunch
- 7 PM Table service supper (please arrive at 7:00)

Special Events

- 8:30 PM, Mon, Tues, Thurs Evening recreational events
- 11-12:30, Tuesday Poster session (room 19)
- 5-6:30 PM, Wednesday Career panel (ballroom 16)
- 8:30-9:30 PM, Wednesday Inuit traditional music “lecture”
- 11:45-12:30, 5-6:30 Thurs Two workshops (ballroom 16)
- 2:15-3:00, Friday Closing session and survey

Departure

- 11 AM, Friday Check-out time (and take down posters)
- 3:30 PM, Friday Bus leaves for Toronto

Poster Session



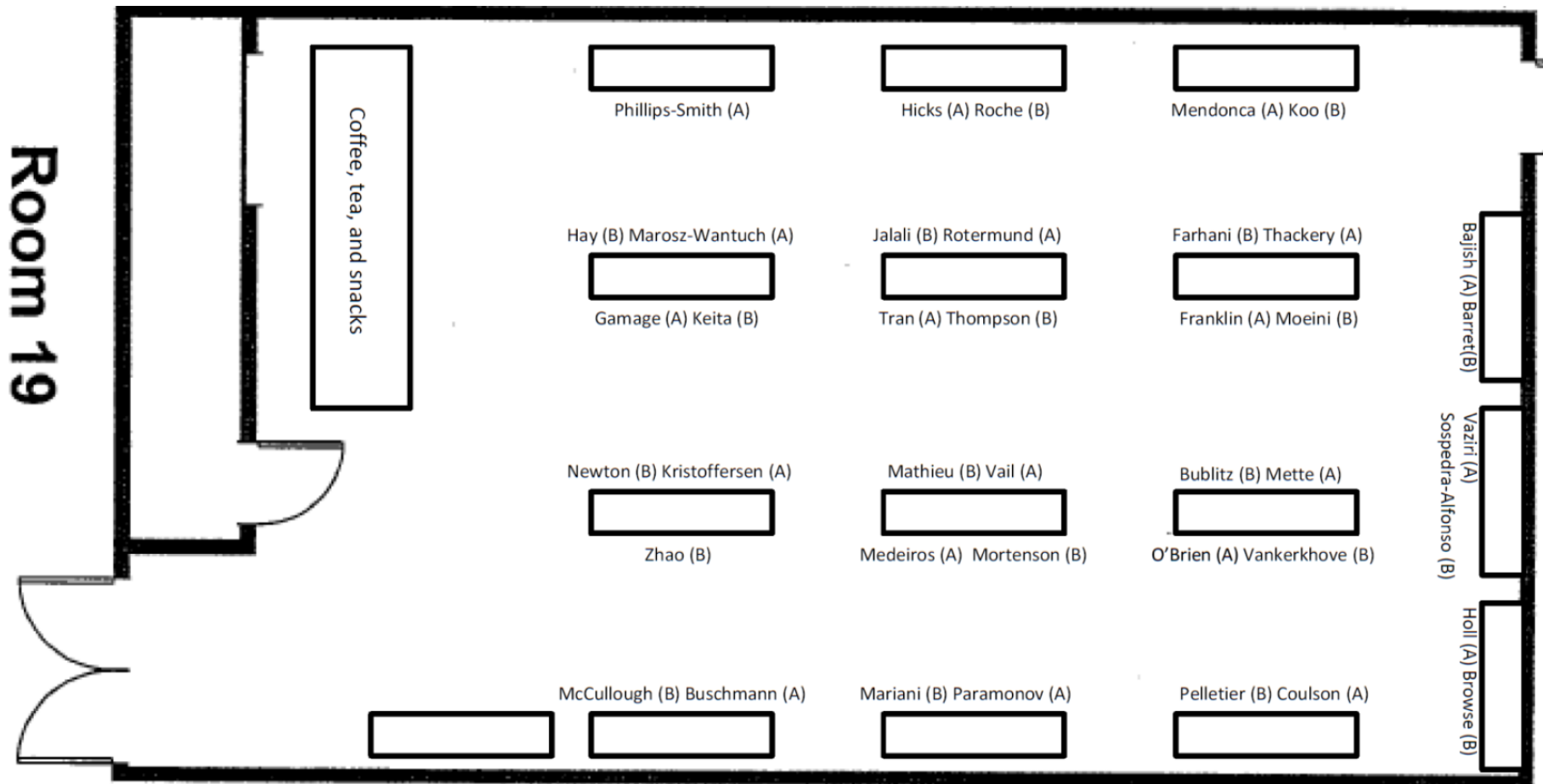
- Posters will be displayed in room 19 from Monday through Friday (coffee breaks will also be held in this room)
- Poster boards should be set up now - please mount your poster today and take it down on Friday morning
- The formal poster session is at 11:00-12:30, Tuesday
- Please stay near your poster for your assigned session, as judges will be visiting during this time:
 - Session A → 11:00-11:45
 - Session B → 11:45-12:30
- Awards will be given to the best posters! (at 6:30 Thursday)
- Judges for PhD and PDF posters:
 - Mark Flanner, Christian Haas, Jochen Halfar, Lisa Miller
- Judges for MSc posters:
 - Session A: Jo Browse & Reinel Sospedra-Alfonso
 - Session B: C.C. Bajish & Gerrit Holl

See pages 23-24 of your program book for your session and location

Poster Layout



- Session A → 11:00-11:45 Session B → 11:45-12:30
- You will be also able to review posters Monday to Thursday afternoon from 8:30AM – 7:00PM.



Recreational Activities



- 8:30 PM, Monday
 - Welcoming “Icebreaker” organized by the CREATE-AAS TAC
 - Begins at 8:30 PM at the lower patio, with the Starlight Lounge as alternate location in case of rain (map on page 22)
- 8:30 PM, Tuesday
 - Outdoor sports (soccer, volleyball, ultimate frisbee) at field 10 (map on page 21)
- 8:30 PM, Thursday
 - Indoor minigolf in the Sports and Leisure Dome 2 (map on page 21)
- 1:30-3:00 PM & after 9:30 PM
Weds. evening are free time
 - See pages 20-22 of your program book for a full list of on-site facilities and maps

Complimentary with Accommodations

25 metre indoor swimming pool

100ft waterslide

Squash & racquetball courts

Fully-equipped fitness centre

Sauna & Whirlpool

(Available during scheduled times. Age and ability restrictions may apply)

Seasonal

Outdoor swimming pool

Bocce

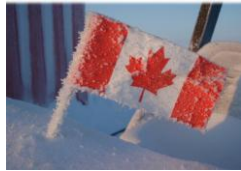
Volleyball

Horseshoes

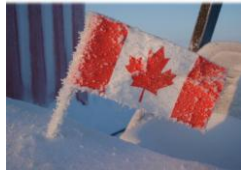
Nature/jogging trail



Today's Schedule



Time		Speaker/Organizer	Topic
10:00 – ~11:30	Chartered bus departs Holiday Inn (280 Bloor Street West, Toronto, ON) for the Nottawasaga Inn. Please be there and ready to leave promptly at 9:45 AM.		
11:30 – 12:00	Arrival and check-in at Nottawasaga Inn (6015 Ontario 89, Alliston, ON)		
12:00 – 1:30	Lunch (Riverview Dining Room)		
1:30 – 1:45	Welcoming remarks	Kimberly Strong	Introduction
1:45- 1:55		Zen Mariani and Network Trainee Committee members	Remarks from representatives of Network Trainee Committees
1:55- 2:00		Zen Mariani	Overview of the Career Panel
2:00 – 3:45	Jamboree	All attendees	Speaker and student research jamboree (two minutes and one slide per attendee)
3:45 – 4:15	Coffee break		
4:15 – 5:00	Lecture A	Christian Haas	The sea ice climate system
5:00 – 5:45	Lecture B	Lisa Miller	Arctic oceanography
5:45 – 6:30	Lecture C	David Serkoak	Inuit social history
6:30 – 6:35	Icebreaker introduction	Zen Mariani and the CREATE-AAS TAC	
6:35 – 7:00	Free time (except for poster judges – please meet in ballroom 16)		
7:00	Dinner (Riverview Dining Room)		
8:30	Welcoming Icebreaker	CREATE-AAS Trainees' Advisory Committee (TAC)	



The program, lecture slides, posters, and photos will be posted at <http://www.candac.ca/create/ss2014/summerschool2014.html>



NSERC CREATE Training Program in Arctic Atmospheric Science



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Site last updated:
1 June 2014

The NSERC CREATE Training Program in Arctic Atmospheric Science is a six-year project, begun in 2010 and supported by [NSERC's Collaborative Research and Training Experience Program](#). Our Program aims to provide students and postdoctoral fellows with training in Arctic atmospheric science, including the use of state-of-the-art instrumentation and analysis of large data sets.

This Program takes advantage of the unique capabilities of the Polar Environment Atmospheric Research Laboratory (PEARL) located at Eureka, Nunavut in the High Arctic (80N, 88W). PEARL has been established by the [Canadian Network for the Detection of Atmospheric Change \(CANDAC\)](#), which is dedicated to addressing issues related to air quality, ozone and climate change. The PEARL facility is home to more than 25 instruments that are being used to make comprehensive measurements of the atmosphere from the ground to 100 km. It is also one of the observatories of the [International Arctic Systems for Observing the Atmosphere \(IASOA\)](#). The students supported under this CREATE Program benefit from the significant investment that Canada has made in PEARL; they have access to a world-class facility, unique data sets, and a large team of researchers with a breadth of expertise.

The Training Program includes formal and informal supervision, an Exchange Program, an Annual Summer School, an Annual Research Symposium, an Undergraduate Summer Internship Program, a Co-operative Education Program, and an Industrial Partnership Program.

The ultimate goal of the Training Program is to significantly enhance the educational opportunities available to young researchers interested in polar, atmospheric, and climate sciences, enabling them to build collaborations and networks, and to develop scientific, technical, communications, and organizational skills. Such skills will make them excellent candidates for employment in academic, government, and industrial positions in environmental science and policy.



1 May 2014
Eight new summer interns join the CREATE team
[more](#)

24-25 April 2014
Our third CREATE Research Symposium held in Toronto
[more](#)

14 April 2014
Applications invited for 2014 Summer School
[more](#)

1 February 2014
New postdoctoral fellows arrive
[more](#)

6 December 2013
Applications invited for 2014 summer internships and graduate studies
[more](#)

August 2013
CREATE-AAS featured in *International Innovation*
[more](#)

NSERC CREATE Trainees' Advisory Committee (TAC)



*Who we are
What we do*



2014 Summer School

Trainees' Advisory Committee for the CREATE program in Arctic Atmospheric Science

- Represents the interests of students, both undergraduate and graduate, and post-doctoral fellows. Advises the Training Program Committee on trainee affairs from the trainees' perspective.
- Promotes interactions between the young researchers & CANDAC
 - Social and research events
 - Networking Opportunities
 - mailing list, social networking, etc
 - All trainees can contribute their thoughts and ideas



**Zen Mariani,
Chair**
(PhD, University of Toronto)



Dan Weaver, Social Media Coordinator
(PhD, University of Toronto)



Shannon Hicks
(PhD, University of Western Ontario)



Debora Griffin
(PhD, University of Toronto)



Joseph Mendonca
(PhD, University of Toronto)



Chris Perro
(PhD, Dalhousie University)



**Liviu Ivanescu
Quebec Engagement**
(PhD, Université de Sherbrooke/ Université du Québec à Montréal)

Trainees' Advisory Committee for the CREATE program in Arctic Atmospheric Science

- Goal is to provide feedback to the organizing committee
- Aiming for membership continuity from year to year
- Members are at a variety of academic stages
- We want to ensure every institution has representation on TAC
- Interested in joining/hearing more? Come to our meeting Thursday during Lunch!

Communication

- Mailing List: create_trainees@candac.ca
- Social media

CREATE Arctic Science

About Events Photos Files

Write Post Add Photo / Video Ask Question Add File

Write something...

RECENT POSTS

Ashley Kilgour
A really neat animation showing time history of atmospheric carbon dioxide from 800,000 years ago until January, 2012:
<https://www.dilgo.com/bookmark/http%3A%2F%2Fwww.esri.noaa.gov%2Fgmd%2Fccgg%2Ftrends%2Fhistory.html?gname=polar-science-education>

Diigo
www.dilgo.com

Like · Comment · Follow Post · Share · 14 May at 11:00 near Waterloo, Ontario

Cyndy Whaley, Dan Weaver, Zen Mariani and 2 others like this.

Write a comment...

Liviu Ivanescu
Another (cool) 2013 Arctic summer school
Climate change in the Arctic Ocean

CREATE ArcticScience
@CREATEArcticSci

We are the Trainee Advisory Committee of the NSERC CREATE Training Program in Arctic Atmospheric Science. We include researchers at many Canadian universities.
Canada · candac.ca/create/

139 TWEETS 65 FOLLOWING 54 FOLLOWERS

Follow

Tweets

CREATE ArcticScience @CREATEArcticSci 21 May
Wonderful news: PEARL received funding for next 5 yrs to con't research into #climate, #ozone & #Arctic atmosphere:
news.gc.ca/web/article-en...
Expand

UWO P&A Lidar Group @purplecrowlidar 9 May
#CPSX @westernu puts the spotlight on Crow Emily @uwophysastro and asks why she goes to the North Pole... tumblr.co/ZGBx7vkdcCm-
Retweeted by CREATE ArcticScience
[View summary](#)

CREATE ArcticScience @CREATEArcticSci 28 Apr
New blog post about an outreach trip to Igloolik, #Nunavut classrooms by Mel, a @WesternU grad student:

New Blog!

createarcticsscience
Stories of adventure & science in the Canadian Arctic

APRIL 29, 2013
March 2013 Igloolik outreach trip

In mid March, I had the amazing opportunity to travel north to Igloolik, Nunavut with two other members of CANDAC — Ashley and Niall. We went there to launch the student-researchers collaborative research project with students in grades 1-7 at Ataguttaaluk Elementary School (AES). They were very eager to learn about

About Us
About PEARL
Links to other Arctic science blogs
Links to neat science stuff

createarcticsscience.wordpress.com

The moral of this story:

- Please let any of us know if you have any suggestions/feedback for the program
- Come to us with any questions



Career Panel

Wednesday

90 minutes



Zen moderates the session

Submit written questions using question box!!

Ask questions & discuss during session

2014 Career Panel



Chris Fletcher
University of Waterloo



Cameron McNaughton
Golder Associates



Marianne Douglas
Canadian Circumpolar Institute



David Tarasik
Environment Canada



Richard Berman
Spectral Applied Research