



Banff International Research Station

for Mathematical Innovation and Discovery

Frontiers in the Detection and Attribution of Climate Change

May 27 - June 1, 2012

MEALS

*Breakfast (Buffet): 7:00 – 9:00 am, Sally Borden Building, Monday – Friday

*Lunch (Buffet): 11:30 am – 1:30 pm, Sally Borden Building, Monday – Friday

*Dinner (Buffet): 5:30 – 7:30 pm, Sally Borden Building, Sunday – Thursday

Coffee Breaks: As per daily schedule, in the foyer of the TransCanada Pipeline Pavilion (TCPL)

***Please remember to scan your meal card at the host/hostess station in the dining room for each meal.**

MEETING ROOMS

All lectures will be held in the new lecture theater in the TransCanada Pipelines Pavilion (TCPL). LCD projector, overhead projectors and blackboards are available for presentations.

NOTES ON THE MEETING

- Speakers and poster presenters: Please bear in mind the breadth of background of participants. Please provide titles and abstracts by email to Paul ASAP.
- 60 minute slots for oral presentation are expository lectures (all on Monday). They should include about 45 minutes of material and allow about 15 minutes for discussion.
- 30 minute slots for oral presentation are more research oriented (Tuesday to Friday). They should include about 25 minutes of material and allow about 5 minutes for discussion.
- Poster presenters will be given a couple of minutes each to present their poster to the group at the start of the poster sessions Monday and Tuesday evenings.
- Poster boards are 6' (180 cm) wide and 4' (120 cm) tall.
- Session/breakout chairs are asked to guide and stimulate the discussion.
- Rapporteurs are asked to record notes on presentations and discussion onto blackboards and/or computer files. Please post the files or pictures of the blackboards to the workshop website, or email to Paul to post for you.
- Please let the organizers know if you are not comfortable with your chair or any other assignment.
- Please consider sharing your slides and posters on the workshop website. You can upload yourself or email to Paul to do this for you.

SCHEDULE

Sunday

16:00 Check-in begins (Front Desk – Professional Development Centre - open 24 hours)

17:30-19:30 Buffet Dinner

20:00 Informal gathering in 2nd floor lounge, Corbett Hall (if desired)

Beverages and small assortment of snacks are available on a cash honor system.

Monday

Theme 1: Detection and Attribution Problem and State of the Art

7:00-8:30 Breakfast

8:30-8:45 Introduction and Welcome by BIRS Station Manager, TCPL

Morning Session. Chair: R. Smith. Rapporteur: A. Braverman

8:45-9:00 Introduction to workshop (P. Kushner)

9:00-10:00 Detection and attribution of climate change 1 (B. Santer)

10:00-10:30 Coffee Break, TCPL
10:30-11:30 Human health impacts of climate change (F. Dominici)
11:30-13:00 Lunch
Afternoon Session. Chair: C. Tebaldi. Rapporteur: P. Kushner
13:00-14:00 Impacts of climate change on agriculture (D. Lobell)
14:00-15:00 Detection and attribution of climate change 2 (N. Gillett)
15:00-15:30 Coffee Break, TCPL
15:30-17:00 Panel Discussion: summary, discussion on key issues raised
C. Tebaldi (chair), F. Dominici, N. Gillett, D. Lobell, B. Santer
17:00-17:30 Break before dinner
17:30-19:30 Dinner
19:30-21:00 Poster Session 1: introductions and poster viewing in Corbett Hall (Chair: P. Kushner)

Tuesday

Theme 2: Climate Extremes and Events

7:00-8:45 Breakfast
Morning Session. Chair: T. Delsole. Rapporteur: C. Tebaldi
8:45-9:00 Recap/goals for the day (T. Delsole)
9:00-9:30 D&A of extremes/climate events: theory and methodology 1 (R. Smith)
9:30-10:00 D&A of extremes/climate events: theory and methodology 2 (F. Zwiers)
10:00-10:30 Coffee Break, TCPL
10:30-11:30 Panel discussion: theory and methodology
P. Guttorp (chair), D. Lobell, C. Paciorek, F. Zwiers
11:30-13:00 Lunch
13:00-14:00 Guided Tour of The Banff Centre; meet in the 2nd floor lounge, Corbett Hall
14:00 Group Photo; meet in foyer of TCPL (photograph will be taken outdoors
so a jacket might be required).
Afternoon Session. Chair: J. Imbers. Rapporteur: L. Terray
14:00-14:30 D&A of climate events: practice 1 (R. Dole)
14:30-15:00 D&A of climate events: practice 2 (P. Pall)
15:00-15:30 Coffee Break, TCPL
15:30-16:30 Breakouts:
1) D&A of climate extremes/events: theory, methodology, practice
(Chair: P. Pall. Rapporteur A. Hannart)
2) Importance of extremes in human health/agriculture research
(Chair: C. Paciorek. Rapporteur B. Shaby)
16:30-17:30 Plenary: summary of breakouts (P. Pall and C. Paciorek)
19:30-21:00 Poster Session 2: introductions and poster viewing in Corbett Hall (Chair: C. Tebaldi)

Wednesday

Theme 3: Observational Perspectives, Past and Present

7:00-8:45 Breakfast
Morning Session. Chair: A. Braverman. Rapporteur: P. Kushner
8:45-9:00 Recap/goals for the day (A. Braverman)
9:00-9:30 Earth Observations issues 1 (P. Thorne)
9:30-10:00 Earth Observations issues 2 (C. Mears)
10:00-10:30 Coffee Break, TCPL
10:30-11:00 Paleoclimate data and extremes 1 (M. Tingley)
11:00-11:30 Paleoclimate data and extremes 2 (P. Craigmile)
11:30-13:00 Lunch
Afternoon Session Chair: B. Rajaratnam. Rapporteur: Y. Sun
13:00-14:00 Panel discussion on paleoclimate
B. Rajaratnam (chair), B. Li, M. Tingley, P. Craigmile
14:00-15:00 Breakouts

- 1) Modern Earth Observations (J. Brynjarsdottir chair)
 - 2) Paleoclimate (B. Li chair)
- 15:00-15:30 Coffee Break, TCPL

Theme 1 Reprise: Focus on Climate Change Impacts: Agriculture and Human Health

Afternoon Session. Chair: W. Schlenker. Rapporteur: B. Shaby

- 15:30-16:00 Agriculture and climate impacts talk (M. Roberts)
- 16:00-16:30 Discussion on agriculture
- 16:30-17:00 Human health and climate impacts talk (J. Schwartz)
- 17:00-17:30 Discussion on human health
- 17:30-19:30 Dinner

Thursday

- 7:00-9:00 Breakfast
- 9:00-11:30 Free morning
- 11:30-13:30 Lunch

Theme 4: Frontiers and Synthesis

Afternoon Session. Chair: C. Tebaldi. Rapporteur: W. Anderegg

- 13:30-14:30 Panel discussion: Synthesis, setting the stage for new research.
C. Tebaldi (chair), R. Smith, B. Rajaratnam, J. Schwartz
- 14:30-15:00 Coffee Break, TCPL
- 15:00-16:30 Breakouts
 - 1) Breakout 1: D&A/extremes methodology perspectives (Chair: A. Ribes. Rapporteur: P. Pall)
 - 2) Breakout 2: Observational perspectives (Chair: L. Terray. Rapporteur: Y. Sun)
 - 3) Breakout 3: Human health/agriculture perspectives
(Chair: J. Schwartz. Rapporteur T. Greasby)
- 16:30-17:30 Panel discussion: breakout summary, new frontiers
M. Tingley (chair), A. Ribes, L. Terray, J. Schwartz
- 17:30-19:30 Dinner

Friday

Theme 4 Continued: Connections to assessments, operational needs, programmes, etc..

- 7:00-8:45 Breakfast
- Morning Session Chair: P. Kushner. Rapporteur: J. Imbers*
- 8:45-9:00 Recap/goals for the morning (P. Kushner)
- 9:00-9:30 Detection/attribution methodologies in climate and impacts assessment 1 (F. Zwiers)
- 9:30-10:00 Detection/attribution methodologies in climate and impacts assessment 2 (B. Armstrong)
- 10:00-10:30 Coffee Break, TCPL
- 10:30-11:30 Panel discussion: next steps
B. Santer (chair), B. Armstrong, P. Thorne, R. Dole
- 11:30-11:35 Closing remarks (P. Kushner)
- 11:30-13:00 Lunch

Checkout by 12 noon.

** 5-day workshop participants are welcome to use BIRS facilities (BIRS Coffee Lounge, TCPL and Reading Room) until 3 pm on Friday, although participants are still required to checkout of the guest rooms by 12 noon. **

List of Poster Presenters

- 1. P. Kushner: "Modelling Persistence of Climate Variability"
- 2. A. Ribes

3. Y. Sun: " Functional Median Polish with Climate Applications"
4. A. Hannart
5. P. Thorne (one or two): "The International Surface Temperature Initiative"
6. J. Brynjarsdottir
7. B. Shaby: "Bayesian spatial extreme value analysis to assess the changing risk of widespread crop failure in Europe."
8. T. Delsole: "Optimal Detection and Prediction on Continental Scales."
9. Mike Wehner: "The C20C Detection and Attribution project: A multi-model effort to detect and attribute trends in weather risk"
10. Pardeep Pall: "Anthropogenic greenhouse gas contribution to flood risk in England and Wales in Autumn 2000"
11. A. Braverman: CMIP5/Hawaii meeting contribution.
12. T. Greasby: TBD