



Banff International Research Station

for Mathematical Innovation and Discovery

Hierarchical Bayesian Methods in Ecology September 10-12, 2010

MEALS

Coffee Breaks: As per daily schedule, 2nd floor lounge, Corbett Hall (*included in workshop*)

For meal options at The Banff Centre, there are buffets (breakfast: 7:00 – 9:30 am; lunch: 11:30 am – 1:30 pm; dinner: 5:30 – 7:30 pm) in the Vistas main dining room on the 4th floor of the Sally Borden Building, Gooseberry's Deli, located on the second floor of the Sally Borden Building, and The Mac Lab Cafe, located in the Kinnear Centre. There are also plenty of restaurants and cafes in the town of Banff, a 10-15 minute walk from Corbett Hall.

MEETING ROOMS

All lectures will be held in Max Bell 159. LCD projector, overhead projectors and blackboards are available for presentations. Note that the meeting space designated for BIRS is the lower level of Max Bell, Rooms 155-159. Please respect that all other space has been contracted to other Banff Centre guests, including any Food and Beverages in those areas.

SCHEDULE

If you own a laptop please bring it with R installed. You may also wish to install a version of BUGS (Winbugs for windows or BUGS or JAGS if you are not running Windows).

Check-in is at 4:00 pm and the learning begins at 4:30 pm. Participants are expected to cover their own meal expenses.

Participants should also bring:

1. A complex hierarchical ecological problem to work on (dataset)
2. A simple normally distributed dataset to learn on
3. A dataset on which to apply a generalized linear model

N.B. For participants without datasets: Christian will provide datasets from his previous Bayesian ecology workshop in Aosta.

Friday, September 10, 2010

- 4:00 pm** Check-in begins (Front Desk – Professional Development Centre - open 24 hours)
- 4:30-5:30** Participants will introduce themselves and their hierarchical datasets and break into groups with similar statistical problems (Meeting in Max Bell 159).
- 5:30-6:30** Dinner at the Banff Centre buffet at the Vistas main dining room on the fourth floor of the Sally Borden Building.

Saturday, September 11, 2010

- 7:00-8:00** Breakfast
- 8:30** Lectures—Christian Robert will introduce to the normal model (Theory). The lecture will be based on chapter 2 of Bayesian Core.
- 10:00** Coffee Break, 2nd floor lounge, Corbett Hall

- 10:15-12:00** Guided practice: Participants will apply the normal model to datasets (Practice). Participants should provide their own normally distributed simple learning data-sets.
- 12:00-1:00** Lunch
- 1:00-2:30** Lectures—Bayesian linear regression techniques will be introduced based on chapter 3 of Bayesian Core (Theory).
- 2:30** Coffee break, 2nd floor lounge, Corbett Hall
- 2:45-4:00** Guided practice: Participants will apply linear regressions to their own datasets (Practice). Participants should provide their own interesting linear regression data
- 4:00-6:00** Lectures—Bayesian methods for generalized linear models will be covered based on chapter 4 of Bayesian Core (Theory)
- 6:30-7:30** Dinner
- 7:30-8:30** Guided practice: Generalized linear models (for example logistic regression and log-linear models for proportion data). Participants will continue working after 8:30 if necessary.

Sunday, September 12, 2010

- 7:00-8:00** Breakfast
- 8:00-9:00** Roundtable discussion of hierarchical models and modeling ecological complexity
- 9:00-10:00** Discussion of the theory of Bayesian hierarchical models led by Christian Robert
- 10:00-10:30** **Please take this time to checkout of your room before grabbing a coffee.** Coffee break, 2nd floor lounge, Corbett Hall.
- 10:30-12:00** Guided practice: on participant's hierarchical problems I
- 12:00** **It is very important that participants checkout of their rooms by 12 noon as their will be a five day workshop using the rooms Sunday afternoon.**
- A light lunch will be provided by the workshop organizers so that we can continue working.
- 12:00-12:30** Discussion of common hierarchical modeling problems and troubleshooting
- 12:30-2:30** Guided practice: hierarchical models II
- 2:30-3:00** Workshop wrap-up and departure

** self-serve coffee and tea are always available in the 2nd floor lounge, Corbett Hall. **



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Name of 2009 2-day Workshop

Date of 2009 2-day Workshop

ABSTRACTS

(in alphabetic order by speaker surname)

Speaker: Name (Affiliation)

Title: Title

Abstract: Abstract Text

Speaker: Name (Affiliation)

Title: Title

Abstract: Abstract Text

Speaker: Name (Affiliation)

Title: Title

Abstract: Abstract Text