

Name of 2009 5-day Workshop

Date of 2009 5-day Workshop

MEALS

*Breakfast (Buffet): 7:00–9:30 am, Sally Borden Building, Monday–Friday

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

*Dinner (Buffet): 6:00–7:30 pm, Sally Borden Building, Sunday–Thursday

Coffee Breaks: As per daily schedule, 2nd floor lounge, Corbett Hall

***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 Max Bell 159 (Max Bell Building accessible by walkway on 2nd floor of Corbett Hall). LCD projector, overhead projectors and blackboards are available for presentations. Please 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 Beverage in those areas.

SCHEDULE

Sunday

- 16:00** Check-in begins (Front Desk - Professional Development Centre - open 24 hours)
Lecture rooms available after 16:00 (if desired)
- 17:30–19:30** Buffet Dinner, Sally Borden Building
- 20:00** Informal gathering in 2nd floor lounge, Corbett Hall (if desired)
Beverages and small assortment of snacks available on a cash honour-system.

Monday

- 7:30–8:45** Breakfast
- 8:45–9:00** Introduction and Welcome to BIRS by BIRS Station Manager, Max Bell 159
- 9:00–10:00** Hans Adler: *General introduction to stability methods in unstable structures.*
- 10:00–10:30** Coffee Break, 2nd floor lounge, Corbett Hall.
- 10:30–11:30** Alex Usvyatsov: *Forking in dependent theories.*
- 11:30–13:00** Lunch
- 12:30–13:30** Guided Tour of The Banff Centre; meet in the 2nd floor lounge, Corbett Hall
- 13:30–15:00** Pierre Simon: *Measures in NIP theories*
- 15:00–15:30** Coffee Break, 2nd floor lounge, Corbett Hall.
- 15:30–16:30** Dugald Macpherson *Finite rank and metastability.*
- 16:30–17:20** John Baldwin: *Expanding a stable or NIP structure.*
- 17:30–18:00** Jakub Gismatullin: *Absolutely connected group.*
- 18:00–19:30** Dinner
- 19:30–20:10** Gareth Boxall: *Lovely pairs of models of a thorn rank one theory.*
- 20:10–** Working time, possibly contributed talks

Tuesday

- 7:00–9:00 Breakfast
9:00–10:00 Artem Chernikov: *Theories with NTP_2 (no tree property of the second kind)*
10:00–10:10 Group Photo; meet on the front steps of Corbett Hall
10:00–10:30 Coffee Break, 2nd floor lounge, Corbett Hall.
10:30–11:30 Ehud Hrushoski, *NIP and metastability*.
11:30–13:30 Lunch
13:30–14:30 Andreas Baudisch: *Additive collapse*.
14:30–18:00 Unstructured working time with Coffee Break, 2nd floor lounge, Corbett Hall 3:00 pm to 3:30 pm
18:00–19:30 Dinner
19:30–20:00 Mirna Dzamonja: *Some questions in Banach space theory that might be solved using model theory*
20:10– Working time, possibly contributed talks.

Wednesday

- 7:00–8:30 Breakfast
8:30–9:20 Assaf Hasson: *Stability in dependent rosy theories*.
9:30–10:30 Dugald Macpherson: *Asymptotic classes and measurable structures*.
10:30–11:00 Coffee Break, 2nd floor lounge, Corbett Hall.
11:00–11:30 Unstructured time.
11:30–13:30 Lunch
13:30–18:00 Free Afternoon.
18:00–19:30 Dinner
19:30–20:10 Alex Berenstein: *Results about pairs of structures*.
20:10– Working time, possibly contributed talks.

Thursday

- 7:00–9:00 Breakfast
9:00–9:50 John Goodrick: *Amalgamation properties for types in stable theories and beyond*.
10:00–10:20 Coffee Break, 2nd floor lounge, Corbett Hall.
10:20–11:10 Monica VanDieren
11:10–11:50 Maryanthe Malliaris: *Combinatorial complexity of unstable theories*.
11:50–14:00 Lunch
14:00–15:00 Ludmir Newelski??
15:00–15:30 Byungham Kim: *NTP_1 theories*.
15:30–18:00 Unstructured working time with Coffee Break, 2nd floor lounge, Corbett Hall 3:00 pm to 3:30 pm
18:00–19:30 Dinner
19:30–20:00 Itay Kaplan *Examples in dependent theories (joint work with Saharon Shelah)*.
20:00–21:30 Unstructured working time.

Friday

- 7:00–9:00 Breakfast
9:00–9:30 Janak Ramakrishnan: *Classifying n -types in o -minimal theories*.
9:30–11:30 Lectures as volunteered
(Informal Discussions)
Coffee Break, 2nd floor lounge, Corbett Hall, 10 am
11:30–13:30 Lunch
Checkout by 12 noon.

** 5-day workshops are welcome to use the BIRS facilities (2nd Floor Lounge, Max Bell Meeting Rooms, Reading Room) until 3 pm on Friday, although participants are still required to checkout of the guest rooms by 12 noon. **

Stability Theoretic Methods in Unstable Theories

Feb 8 - Feb 13, 2009

ABSTRACTS

Speaker: **Baldwin, John** (University of Illinois at Chicago)

Title: *Expanding a stable or NIP structure*

Abstract: We discuss the general question. If A is a subset of M , does naming A change the stability class? We consider sufficient conditions provided (in various combinations) by Baizhanov, Baldwin, Benedikt, Bouscaren, Casanovas, Poizat, Shelah, Ziegler for the answer to be NO. And we consider specific conjectures for extending these results. E.g. Conjecture: If M is stable and I is a set indiscernibles in M , then (M, I) is stable. Baizhanov-Baldwin have proved yes if I has infinite co-dimension.

Speaker: **Chernikov, Artem** (Humboldt University of Berlin)

Title: *Theories with NTP_2 (no tree property of the second kind)*

Abstract: Class of theories with NTP_2 introduced by Shelah is a common generalisation of simple and dependent theories. Although it is generally true that NIP and simple theories behave quite orthogonally, there is still some amount of things one can treat uniformly. I will give a survey of what is known so far and ask many questions.

Speaker: **Goodrick, John.** (University of Maryland)

Title: *Amalgamation properties for types in stable theories and beyond.*

Abstract: This talk will focus on two related questions: when can independent systems of complete types be amalgamated, and when is the result of such an amalgamation unique? Even in stable theories, these amalgamations are not always possible or unique, and there are strict hierarchies of simple theories (n-simplicity, n-complete amalgamation property, etc.) which classify them according to which diagrams one can amalgamate over. Hrushovski has recently found connections in stable theories between uniqueness for 3-amalgamation, definable groupoids, and finite internal covers.

In this talk, I will define various amalgamation properties, give examples and counter-examples, and try to explain their significance. I will also discuss some directions for future research, such as trying to generalize Hrushovski's results to higher-dimensional amalgamation and searching for interesting amalgamation properties for rosy theories.

Speaker: **Malliaris, Maryanthe.** (University of California at Berkeley.)

Title: *Combinatorial complexity of unstable theories*

Abstract: I will describe a program from my thesis of analyzing the complexity of unstable formulas by associating to each ϕ a countable sequence of hypergraphs, called the characteristic sequence, which can then be studied using tools from graph theory and combinatorics.

Speaker: **Simon, Pierre** (Ecole Normale de Paris)

Title: *Measures in NIP theories*

Abstract: Keisler measures are a generalization of types, where the set of truth values is taken to be $[0,1]$. They have been used recently by Hrushovski, Peterzil and Pillay in their work on the o-minimal conjectures. In this talk, I will give an overview of the general theory of measures in NIP theories, emphasizing how many results extend naturally from types to measures.

Speaker: **Name** (Affiliation)

Title: *Title*

Abstract: Abstract Text