

# Black Holes: Theoretical, Mathematical and Computational aspects

Arriving Sunday, November 9 and departing Friday, November 14, 2008

## MEALS

- \*Breakfast (Buffet): 7:00 am - 9:30 am, Sally Borden Building, Monday-Friday
- \*Lunch (Buffet): 11:30 am - 1:30 pm, Sally Borden Building, Monday-Friday
- \*Dinner (Buffet): 5:30 pm - 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, November 9

**16:00** Check-in begins (Front Desk - Professional Center - open 24 hours)  
**17:30-19:30** Dinner

### Monday, November 10

**8:45-9:00** Opening. Introduction and Welcome to BIRS.  
**9:00-9:50** Myers, Robert (Perimeter Institute) "Viscosity Bounds and Causality Violations in Higher Derivative Gravity"  
**9:50-10:40** Yoshino, Hirotaka (University of Alberta) "The Randall-Sundrum II black holes"  
**10:40-11:00** Coffee Break  
**11:00-11:50** Kim, Sang Pyo (APCTP) "Hawking Radiation as Local Geometrical Effects"  
**12:00-13:30** Lunch  
**13:30-14:00** Connell, Patrick (University of Alberta) "Parallel Transport along Geodesics in the Higher Dimensional Kerr-NUT-(A)dS Spacetime"  
**14:00-14:30** Cuzinatto, Rodrigo (University of Alberta) "Interacting Constituents in Cosmology"  
**14:30-17:30** Informal Discussions

**17:30-19:30** Dinner

**19:30-20:20** Frolov, Valeri (University of Alberta) "Dark Side of Extra Dimensions and Hidden Symmetries"

## **Tuesday, November 11**

**9:00-9:50** Sasaki, Misao (Kyoto University) "Primordial black hole formation after inflation"

**9:50-10:40** Poisson, Eric (University of Guelph) "Black holes in tidal environments"

**10:40-11:00** Coffee Break

**11:00-11:50** Shibata, Masaru (University of Tokyo) "Simulating coalescence of binary compact objects"

**11:50** Group Photo; meet on the front steps of Corbett Hall

**12:00-13:30** Lunch

**13:30-14:20** Murata, Keiju (Kyoto University) "Instabilities of  $Kerr - AdS_5 \times S^5$  spacetime"

**14:30-17:30** Informal Discussions

**17:30-19:30** Dinner

**19:30-20:20** Page, Don (University of Alberta) "Geodesic Motion Around Higher Dimensional Black Holes is Completely Integrable"

## **Wednesday, November 12**

**9:00-9:50** Kang, Gungwon (Korea Institute of Science and Technology Information) "Gregory-Laflamme instability and hypercylindrical solutions with tensions"

**9:50-10:40** Park, Seong Chan (Seoul National University, IPMU) "A review of topics on the micro black holes at the LHC : safety, signals, a room for future progress"

**10:40-11:00** Coffee Break

**11:00-11:50** Unruh, Bill (University of British Columbia) "Dumb Holes– Numerical and Analytic Temperatures"

**12:00-13:30** Lunch

**13:30-14:00** Shoom, Andrey (University of Alberta) "Interior of Distorted Reissner-Nordstrom Black Hole"

**14:00-14:30** Abdolrahimi, Shohreh (University of Alberta) " The singularity "inner structure" "

**14:30-17:30** Informal Discussions

**17:30-19:30** Dinner

**19:30-20:20** Semenoff, Gordon (University of British Columbia) "Matrix model - black string"

## **Thursday, November 13**

**9:00-9:50** Mann, Robert (University of Waterloo) "Solitons, Stability, Solutions, and Saturn: Adventures in 5D Gravity"

**9:50-10:40** Kunz, Jutta (University of Oldenburg) "Black-hole black-string transitions?"

**10:40-11:00** Coffee Break

**11:00-11:50** Lee, Hyun Kyu (Hanyang University) "Thermodynamic constraints on black hole formation"

**12:00-13:30** Lunch

**14:30-17:30** Informal Discussions

**17:30-19:30** Dinner

**19:30-20:20** Kimura, Masashi (Osaka City University) "Five dimensional black holes with non-trivial asymptotic structure"

**Friday, November 14**

**9:00-9:50** Dan Gorbonos (University of Alberta) "On Wald's Entropy"

**9:50-10:40** Zelnikov, Andrei (University of Alberta) "Gyratons on Spacetimes of Constant Curvature"

**10:40-11:00** Coffee Break

**11:00-11:30** Discussions

**11:30-13:30** Lunch

**Checkout by 12 noon**