

**Algebraic design theory with Hadamard matrices:  
applications, current trends and future directions  
BIRS Workshop 14w2199  
July 11 – 13, 2014**

**MEALS**

Coffee Breaks to be held in the foyer of the TransCanada Pipeline Pavilion (TCPL).

Meals are served at Vistas Main Dining Room on the 4th floor of Sally Borden Building (breakfast: 7:00-9:30am; lunch: 11:30am-1:30pm; dinner: 5:30-7:30pm), please bring the meal card which was provided at the checkin. Other meal options are available at Le Cafe (ground floor, Sally Borden Building) and the Maclab Bistro (Kinnear Centre) and you will also find a good selection of restaurants in the town of Banff which is a 10-15 minute walk from Corbett Hall.

Beverages and a small assortment of snacks are available in the 2nd floor lounge of Corbett Hall on a cash honor system.

**MEETING ROOMS**

All lectures will be held in the lecture theater in the TransCanada Pipelines Pavilion (TCPL). An LCD projector, a laptop, a document camera, and blackboards are available for presentations.

The BIRS facilities (2nd Floor Lounge, TCPL, Reading Room) are available for use until 3:00 pm Sunday, although participants are still required to checkout of the guest rooms by 12 noon Sunday. There is no coffee break service on Sunday afternoon, but self-serve coffee and tea are always available in the 2nd floor lounge of Corbett Hall.

## SCHEDULE

### Friday

- 4:00** Check-in begins (Front Desk - Professional Development Centre - open 24 hours)  
**7:30** Informal gathering in 2nd floor lounge, Corbett Hall

### Saturday

- 07:00-08:30** Breakfast
- 08:30-09:20** Charlie Colbourn, *Permutation Coverings*  
**09:30-09:50** William Orrick, *Update on Hadamard's maximal determinant problem*  
**09:55-10:15** Ian Wanless, *Chromatic index of Steiner triple systems and Latin squares*
- 10:20-10:35** Coffee Break
- 10:35-11:25** Vladimir Tonchev, *On some special classes of Hadamard matrices*  
**11:35-11:55** Darcy Best, *Parity of transversals in latin squares*
- 12:00-1:30** Lunch
- 1:45-2:35** Qing Xiang, *The Smith and Critical Groups of a Graph*  
**2:45-3:05** Padraig Ó Catháin, *Hadamard matrices, PBDs and compressed sensing*
- 3:10-3:30** Coffee Break
- 3:30-3:50** José Andrés Armario, *Some thoughts on permanents of Sylvester Hadamard matrices and Boolean functions*  
**3:55-4:15** Sho Suda, *A two-fold cover of strongly regular graphs with spreads and association schemes of class five*  
**4:20-4:40** Rob Craigen, *Circulant Generalized Weighing Matrices*  
**4:45-5:05** Ferenc Szöllösi, *The weighing matrices of weight 9*
- 5:30-7:30** Dinner

### Sunday

- 07:00-09:00** Breakfast
- 09:00-09:50** Karol Zyczkowski, *Complex Hadamard matrices and almost Hadamard matrices*  
**10:00-10:20** Bernhard Schmidt, *Group invariant Hadamard matrices and Lander's conjecture*
- 10:25-10:40** Coffee Break  
**10:40-11:40** Problem Session, Rob Craigen
- Checkout by 12 noon  
**11:40-1:30** Lunch