# Topological methods for aperiodic tilings <br> October 13 to 17, 2008 

## 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): 5:30-7:30 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

You are welcome to schedule lectures as you see fit, as long as you adhere to the meal times (noted above), coffee break start and end times (noted below) and take into account the "welcome" on Monday morning, the Banff Centre tour on Monday afternoon and group photo on Tuesday morning.

When your schedule is finalized, please e-mail it to the BIRS Station Manager birsmgr@birs.ca by 12 noon on the Thursday before your arrival.

You are also encouraged to e-mail the schedule to all of your participants. An electronic mail list is offered to each workshop, at the address: <birs event id>@lists.birs.ca. More information about your mail list is available by clicking on the "Mailing List" link on your workshop home page. If there is no such link, and you would like a mail list, please request one at help@birs.ca.

## 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

| 7:00- 9:00 | Breakfast |
| :--- | :--- |
| 9:00-9:15 | Introduction and Welcome by BIRS Station Manager |
| $\mathbf{9 : 1 5 - 1 0 : 0 0}$ | Organization |
| 10:00-10:30 | Coffee Break, 2nd floor lounge, Corbett Hall |
| $\mathbf{1 0 : 3 0 - 1 1 : 3 0}$ | V. Nekrashevych (other workshop) |
|  | Self-similarity in groups and tilings |
| $\mathbf{1 1 : 3 0 - 1 3 : 0 0}$ | Lunch |
| $\mathbf{1 3 : 0 0 - 1 4 : 0 0}$ | Ian Putnam |
|  | C $^{*}$-algebras and Morita equivalence tutorial |
| $\mathbf{1 4 : 0 0 - 1 5 : 0 0}$ | Lorenzo Sadun |
|  | Introduction to aperiodic tilings |
| (for other workshop) |  |
| $\mathbf{1 5 : 0 0 - 1 5 : 3 0}$ | Coffee Break, 2nd floor lounge, Corbett Hall |
| $\mathbf{1 5 : 3 0 - 1 7 : 3 0}$ | Marcy Barge <br>  <br> The state of the art in 1-dimension, <br> asymptotics in 2-dimensions <br> $\mathbf{1 7 : 3 0 - 1 9 : 3 0}$ |
| Dinner |  |

Tuesday

| 7:00-9:00 | Breakfast |
| :--- | :--- |
| 9:00-10:00 | Pierre Arnoux |
|  | Generalized substitutions, part 1 |

10:00-10:30 Coffee Break, 2nd floor lounge, Corbett Hall
10:30-12:00 Pierre Arnoux
Generalized substitutions, part 2
12:00-13:30 Lunch
13:30-15:00 free for discussions
15:00-15:30 Coffee Break, 2nd floor lounge, Corbett Hall
Lectures
15:30-17:30 John Pearson
Non-commutative geometry
for Cantor sets
17:30-19:30 Dinner
20:00-21:00 Jean Bellissard
Physics and non-FLC tilings

| Wednesday |  |
| :--- | :--- |
| $\mathbf{7 : 0 0 - 8 : 4 5}$ | Breakfast |
| $\mathbf{8 : 4 5 - \mathbf { 1 0 } 0 : 0 0}$ | Franz Gähler |
|  | Computational methods for tiling cohomology <br>  <br> in dimensions 2 and 3 |
| $\mathbf{1 0 : 0 0}$ | Group photo, steps of Corbett Hall |
| $\mathbf{1 0 : 0 0 - 1 0 : 3 0}$ | Coffee Break, 2nd floor lounge, Corbett Hall |
| $\mathbf{1 0 : 3 0 -}$ | Free |


| Thursday |  |
| :---: | :---: |
| 7:00-9:00 | Breakfast |
| 9:00-10:00 | Natalie Frank |
|  | Combinatorial verses geometric substitutions and the loss of FLC |
| 10:00-10:30 | Coffee Break, 2nd floor lounge, Corbett Hall |
| 10:30-12:00 | Antoine Julien |
|  | Complexity and cohomology |
| 12:00-13:30 | Lunch |
| 13:30-15:00 | Oyono-Oyono/Petite |
|  | Tilings in hyperbolic space |
| 15:00-15:30 | Coffee Break, 2nd floor lounge, Corbett Hall |
| 15:30-16:30 | Jean Savinien |
|  | PV-cohomology of tilings |
| 15:30-16:30 | Lorenzo Sadun (room TBA) |
|  | What is cohomology? |
| 16:30-17:30 | Hervé Oyono-Oyono |
|  | Non-commutative geometry and tilings |
| 16:30-17:30 | John Hunton (room TBA) |
|  | Pinwheel computations |
| 17:30-19:30 | Dinner |
| 20:00-21:00 | Ian Putnam |
|  | Smale spaces and tilings |
| Friday |  |
| 7:00-9:00 | Breakfast |
| 9:00-10:00 | Problems |
| 10:00-10:30 | Coffee Break, 2nd floor lounge, Corbett Hall |
| 10:30-12:00 | More problems |
| 12:00-13:30 | 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. ${ }^{* *}$

