

## Workshop II: Approximation Properties in Operator Algebras and Ergodic Theory

### Monday April 30, 2018

- 8:30–9:20 *Check-in/Breakfast (hosted by IPAM)*
- 9:20–9:30 *Welcome and Opening Remarks*
- 9:30–10:20 **Narutaka Ozawa** (Kyoto University)  
*Aut(F\_5) has the property (T)*
- 10:30–10:50 *Break*
- 10:50–11:40 **Jesse Peterson** (Vanderbilt University)  
*Connes' character rigidity conjecture for lattices in higher rank groups*
- 11:50–12:10 *Break*
- 12:10–1:00 **Remi Boutonnet** (Institut de Mathematiques de Bordeaux)  
*A notion of spectral gap for infinite measure preserving actions*
- 1:15–2:45 *Lunch (on your own)*
- 2:45–3:35 **Tim Austin** (University of California, Los Angeles (UCLA))  
*Entropy and the structure of measure-preserving transformations*
- 3:45–4:05 *Break*
- 4:05–4:55 **Gilles Pisier** (Texas A&M University - College Station)  
*Completely Sidon sets in discrete groups and C\*-algebras*

### Tuesday May 1, 2018

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Lewis Bowen** (University of Texas at Austin)  
*Sofic homology invariants and the Weak Pinsker property*
- 10:30–10:50 *Break*
- 10:50–11:40 **Adrian Ioana** (University of California, San Diego (UCSD))  
*Rigidity for von Neumann algebras of amalgamated free product groups*
- 11:50–12:10 *Break*

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- 12:10–1:00 **Sorin Popa** (University of California, Los Angeles (UCLA))  
*On the vanishing cohomology problem for cocycle actions of groups on  $II_1$  factors*
- 1:15–2:45 *Lunch (on your own)*
- 2:45–3:35 **Ben Hayes** (University of Virginia)  
*Mixing and spectral gap relative to Pinsker algebras of Sofic groups*
- 3:45–4:00 *Break*
- 4:30–5:30 **Vaughan Jones** (Vanderbilt University)  
*Public Lecture - Green Family Lecture Series: "What is it about the Plane?"*
- 5:30–6:45 *Reception (Location: IPAM Lobby)*

### Wednesday May 2, 2018

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Assaf Naor** (Princeton University)  
*Impossibility of metric dimension reduction in Schatten 1*
- 10:30–10:50 *Break*
- 10:50–11:40 **Wouter Van Limbeek** (University of Michigan)  
*Rigidity of warped cones and coarse geometry of expanders*
- 11:50–12:10 *Break*
- 12:10–1:00 **Thomas Vidick** (California Institute of Technology)  
*Unitary correlation sets*
- 1:15–2:45 *Lunch (on your own)*
- 2:45–3:35 **Gideon Schechtman** (Weizmann Institute of Science)  
*Obstructions to embedding subsets of Schatten classes in  $L_p$  spaces*
- 3:45–4:00 *Break*
- 4:30–5:30 **Vaughan Jones** (Vanderbilt University)  
*Green Family Lecture Series: "God May or May Not Play Dice but He Sure Loves a von Neumann Algebra"*
- 5:30–6:45 *Reception (Location: IPAM Lobby)*

## Thursday May 3, 2018

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Vaughan Jones** (Vanderbilt University)  
*The Wysiyg representations of the Thompson groups*
- 10:30–10:50 *Break*
- 10:50–11:40 **Emmanuel Breuillard** (Westfälische Wilhelms Universität Münster)  
*Joint spectral radius and joint spectrum*
- 11:50–12:10 *Break*
- 12:10–1:00 **Marius Junge** (University of Illinois at Urbana-Champaign)  
*Ubiquitous Connes' embedding problem*
- 1:15–2:45 *Lunch (on your own)*
- 2:45–3:35 **David Kerr** (Texas A&M University - College Station)  
*Almost finiteness,  $Z$ -stability, and the small boundary property*
- 3:45–4:05 *Break*
- 4:05–4:55 **Alain Valette** (Université de Neuchâtel)  
*Combinatorial hyperfiniteness for graph sequences*

## Friday May 4, 2018

- 8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*
- 9:30–10:20 **Miklos Abert** (Renyi Institute of Mathematics)  
*A measured approach to sofic entropy*
- 10:30–10:50 *Break*
- 10:50–11:40 **Stefaan Vaes** (KU Leuven )  
*Bernoulli actions of type III and  $L^2$ -cohomology*
- 11:50–12:10 *Break*
- 12:10–1:00 **Cyril Houdayer** (Université Paris-Sud (Orsay))  
*Structure of bicentralizer algebras and inclusions of type III factors*
- 1:15–2:45 *Lunch (on your own)*
- 2:45–3:35 **Ionut Chifan** (University of Iowa)  
*Some rigidity results for  $II_{\infty}$  factors arising from wreath products of property (T) groups*
- 3:45–4:05 *Break*

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4:05–4:55 **Thomas Sinclair** (Purdue University)  
*On the classification of group von Neumann algebras*

## Saturday May 5, 2018

8:30–9:30 *Check-in/Breakfast (hosted by IPAM)*

9:30–10:20 **Ilijas Farah** (York University)  
*Rigidity for uniform Roe algebras*

10:30–10:50 *Break*

10:50–11:40 **Isaac Goldbring** (University of California, Irvine (UCI))  
*Spectral gap and definability*

11:50–12:10 *Break*

12:10–1:00 **William Slofstra** (University of Waterloo)  
*A group with subexponential hyperlinear profile*

1:15–2:45 *Lunch (on your own)*

2:45–3:35 **Hanfeng Li** (SUNY Buffalo)  
*Garden of Eden and specification*

3:45–4:05 *Break*

4:05–4:55 **Masaki Izumi** (Kyoto University)  
*The flow of weights and the Cuntz-Pimsner algebras.*

5:10 *Conclusion*

