

Centre de recherches mathématiques  
Université de Montréal

Atelier sur les fondements de la mécanique quantique  
à la lumière de l'information quantique III

Du 6 au 9 décembre 2011

*Workshop on Quantum Foundations  
in the Light of Quantum Information III*

*December 6-9, 2011*

## **HORAIRE / PROGRAM**

Conférences : salle 6214 (Pavillon André-Aisenstadt)

Pauses-café : salon Maurice-L'Abbé (salle 6245, Pavillon André-Aisenstadt)

*Lectures: Room 6214 (Pavillon André-Aisenstadt)*

*Coffee Breaks: Salon Maurice-L'Abbé (Room 6245, Pavillon André-Aisenstadt)*

## Le mardi 6 décembre 2011 / *Tuesday, December 6, 2011*

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- 09:00 - 09:30** Inscription (salle 5345) et café-croissants (salle 6245)  
*Registration (Room 5345) and Coffee & Croissants (Room 6245)*
- 09:30 - 09:45** Introduction / *Opening remarks* (Gilles Brassard & Christopher Fuchs)
- 09:45 - 10:45** **Man-Duen Choi** (University of Toronto)  
*“What on earth does an abstract quantum computer mean?”*
- 10:45 - 11:15** Pause-café / *Coffee break*  
(Salle / *Room* 6245)
- 11:15 - 12:15** **Giacomo Mauro D’Ariano** (Università degli Studi di Pavia)  
*“Quantum foundations: What’s next?”*
- 12:15 - 15:00** Pause-déjeuner et session de travail / *Lunch break & work session*
- 15:00 - 16:00** **Paolo Perinotti** (Università degli Studi di Pavia)  
*“Causality, locality and spooky action at a distance”*
- 16:00 - 16:30** Pause-café / *Coffee break*  
(Salle / *Room* 6245)
- 16:30 - 17:30** **Giulio Chiribella** (Perimeter Institute)  
*“Quantum theory, with less causality”*
- 17:30** Cocktail de bienvenue / *Welcoming reception*  
(Salle / *Room* 6245)

## Le mercredi 7 décembre 2011 / *Wednesday, December 7, 2011*

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**09:30 - 10:30** Café croissants / *Coffee & Croissants*  
(Salle / Room 6245)

**10:30 - 11:30** **Robert Spekkens** (Perimeter Institute for Theoretical Physics)  
*“Formulating quantum theory as a causally neutral theory of Bayesian inference”*

**11:30 - 15:00** Pause-déjeuner et session de travail / *Lunch break & work session*

**15:00 - 16:00** **Caslav Brukner** (University of Vienna)

**16:00 - 16:30** Pause-café / *Coffee break*  
(Salle / Room 6245)

**16:30 - 17:30** **Markus P. Müller** (Perimeter Institute for Theoretical Physics)  
*“Reversibility as an axiom for quantum theory and the search for its closest cousins”*

**19:30** **Banquet**  
Restaurant Chez Queux (158, rue St-Paul Est, Vieux-Montréal)

## Le jeudi 8 décembre 2011 / *Thursday, December 8, 2011*

**09:00 - 09:30** Café croissants / *Coffee & Croissants*  
(Salle / Room 6245)

**09:30 - 10:30** **Jeffrey Bub** (University of Maryland)  
*“Einstein and Bohr meet Alice and Bob”*

**10:30 - 11:00** Pause-café / *Coffee break*  
(Salle / Room 6245)

**11:00 - 12:00** **D. Marcus Appleby** (Perimeter Institute for Theoretical Physics)  
*“Galois symmetries of a SIC-POVM”*

**12:00 - 15:00** Pause-déjeuner et session de travail / *Lunch break & work session*

**15:00 - 16:00** **John A. Smolin** (IBM Research)

**16:00 - 16:30** Pause-café / *Coffee break*  
(Salle / Room 6245)

**16:30 - 17:30** **Jan-Åke Larsson** (Linköping University)  
*“A contextual extension of Spekkens’ toy model”*

## Le vendredi 9 décembre 2011 / *Friday, December 9, 2011*

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**09:00 - 09:30** Café croissants / *Coffee & Croissants*  
(Salle / *Room* 6245)

**09:30 - 10:30** **Howard Barnum** (University of New Mexico)

**10:30 - 11:00** Pause-café / *Coffee break*  
(Salle / *Room* 6245)

**11:00 - 12:00** **Michael D. Westmoreland** (Denison University)  
*“Almost quantum theory”*

**12:00 - 15:00** Pause-déjeuner et session de travail / *Lunch break & work session*

**15:00 - 16:00** **Somshubhro Bandyopadhyay** (Bose Institute)

**16:00 - 16:30** Pause-café / *Coffee break*  
(Salle / *Room* 6245)

**16:30 - 17:30** Conclusion / *Wrap-up session*