



**De:** CRM crm@crm.umontreal.ca  
**Objet:** \*\*\*AUJOURD'HUI\*\*\* CSMQ-Montréal (UQAM) = Liam Watson  
**Date:** 30 septembre 2016 09:05  
**À:** activites@CRM.UMontreal.CA

---

\*\*\*\*\*  
COLLOQUE DES SCIENCES MATHÉMATIQUES DU QUÉBEC  
<http://www.crm.umontreal.ca/Colloques/index.html>  
\*\*\*\*\*

**DATE :**  
Le vendredi 30 septembre 2016 / Friday, September 30, 2016

**HEURE / TIME :**  
16 h / 4:00 p.m.

**CONFERENCIER(S) / SPEAKER(S) :**  
Liam Watson (Université de Sherbrooke)

**TITRE / TITLE :**  
Notions of simplicity in low-dimensions

**LIEU / PLACE :**  
UQAM, Pavillon Président-Kennedy, 201, ave du Président-Kennedy, salle PK-5115

**RESUME / ABSTRACT :**  
Various auxiliary structures arise naturally in low-dimensions. I will discuss three of these: left-orders on the fundamental group, taut foliations on three-manifolds, and non-trivial Floer homological invariants. Perhaps surprisingly, for (closed, connected, orientable, irreducible) three-manifolds, it has been conjectured that the existence of any one of these structures implies the others. I will describe what is currently known about this conjectural relationship, as well as some of the machinery — particularly in Heegaard Floer theory — that has been developed in pursuit of the conjecture.

\*\*\*\*\*  
**Responsables :**  
Olivier Collin (UQÀM)  
Henri Darmon (Université McGill)  
Dimitris Koukoulopoulos (Université de Montréal)  
Iosif Polterovich (Université de Montréal)  
David Stephens (Université McGill)  
Hugh Thomas (UQÀM)