

Date d'envoi: 23 février 2015 (crm@crm.umontreal.ca)

Le café sera servi à 15h30 / BURN 1024
Coffee will be served at 3:30 pm / BURN 1024

COLLOQUE DES SCIENCES MATHÉMATIQUES DU QUÉBEC / MONTRÉAL

<http://www.crm.umontreal.ca/Colloques/colloqueSMQ-Montreal.html>

DATE :

Le jeudi 26 février 2015 / Thursday, February 26, 2015

HEURE / TIME :

16 h / 4:00 p.m.

CONFERENCIER(S) / SPEAKER(S) :

Alistair Savage (University of Ottawa)

TITRE / TITLE :

Categorification in representation theory

LIEU / PLACE :

McGill University, Burnside Hall, 805 rue Sherbrooke 0., Montréal, salle 920

RESUME / ABSTRACT :

This will be an expository talk concerning the idea of categorification and its role in representation theory. We will begin with some very simple yet beautiful observations about how various ideas from basic algebra (monoids, groups, rings, representations etc.) can be reformulated in the language of category theory. We will then explain how this viewpoint leads to new ideas such as the "categorification" of the above-mentioned algebraic objects. We will conclude with a brief synopsis of some current active areas of research involving the categorification of quantum groups. One of the goals of this idea is to produce four-dimensional topological quantum field theories. Very little background knowledge will be assumed.