De: **CRM** CRM@CRM.UMontreal.CA
Objet: ** DEMAIN / TOMORROW ** COLLOQUE DES SCIENCES MATHÉMATIQUES DU QUÉBEC
Date: 9 mars 2017 17:05
À: activites@crm.umontreal.ca

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

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DATE :
Le vendredi 10 mars 2017 / Friday, March 10, 2017

HEURE / TIME :
16 h - 17 h / 4:00 p.m. - 5:00 p.m.

CONFERENCIER(S) / SPEAKER(S) :
Louigi Addario-Berry (Université McGill)

TITRE / TITLE :
Probabilistic aspects of minimum spanning trees

LIEU / PLACE :
CRM, Université de Montréal, Pavillon André-Aisenstadt, 2920 Chemin de la Tour, salle 6254

RESUME / ABSTRACT :
One of the most dynamic areas of probability theory is the study of the behaviour of discrete optimization problems on random inputs. My talk will focus on the probabilistic analysis of one of the first and foundational combinatorial optimization problems: the minimum spanning tree problem. The structure of a random minimum spanning tree (MST) of a graph G turns out to be intimately linked to the behaviour of critical and near-critical percolation on G. I will describe this connection, and present some results on the structure, scaling limits, and volume growth of random MSTs. It turns out that, on high-dimensional graphs, random minimum spanning trees are expected to be three-dimensional when viewed intrinsically, and six-dimensional when viewed as embedded objects.

Based on joint works with Nicolas Broutin, Christina Goldschmidt, Simon Griffiths, Ross Kang, Gregory Miermont, Bruce Reed, Sanchayan Sen.

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