



De: CRM crm@crm.umontreal.ca
Objet: ***AUJOURD'HUI*** : CSMQ-UQAM = Maksym Radziwill
Date: 25 novembre 2016 08:36
À: activites@CRM.UMontreal.CA

COLLOQUE DES SCIENCES MATHÉMATIQUES DU QUÉBEC

DATE :
Le vendredi 25 novembre 2016 / Friday, November 25, 2016

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

CONFERENCIER(S) / SPEAKER(S) :
Maksym Radziwill (McGill University)

TITRE / TITLE :
Around the Möbius function

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

RESUME / ABSTRACT :
The Moebius function plays a central role in number theory; both the prime number theorem and the Riemann Hypothesis are naturally formulated in terms of the amount of cancellations one gets when summing the Moebius function. In recent joint work with K. Matomaki the speaker showed that the sum of the Moebius function exhibits cancellations in "almost all intervals" of increasing length. This goes beyond what was previously known conditionally on the Riemann Hypothesis. The result holds in fact in greater generality. Exploiting this generality one can show that between a fixed number of consecutive squares there is always an integer composed of only "small" prime factors. This is related to the running time of Lenstra's factoring algorithm. I will also discuss some further developments : the work of Tao on correlations between consecutive values of Chowla, and his application of this result to the resolution of the Erdos discrepancy problem.

Responsable(s) :
Olivier Collin (collin.olivier@uqam.ca)
Iosif Polterovich (iosif.polterovich@umontreal.ca)
Henri Darmon (darmon@math.mcgill.ca)
David A. Stephens (dstephens@math.mcgill.ca)

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