



De: CRM CRM@CRM.UMontreal.CA
Objet: **AUJOURD'HUI** - Conférence de la Chaire Aisenstadt 2015 - Bertrand Eynard (CPT, CEA Saclay)
Date: 2 octobre 2015 09:54
À: activites@crm.umontreal.ca

 CHAIRE AISENSTADT CHAIR 2015
 Centre de recherches mathématiques
 Série de conférences et mini-cours / Series of lectures and Mini-courses

Semestre thématique du CRM
 Correspondance AdS/CFT, holographie, intégrabilité

CRM Thematic Semester
 AdS/CFT, Holography, Integrability

Bertrand Eynard (CPT, CEA Saclay)

SÉRIE DE CONFÉRENCES / SERIES OF LECTURES

"Topological Recursion"

Topological recursion is an ubiquitous and universal recursive relationship that has appeared in various domains of mathematics and physics: volumes of moduli spaces, coefficients of asymptotic expansions in random matrix theory, Hurwitz numbers, Jones polynomials, Gromov-Witten invariants, and many other combinatorial objects, all mysteriously satisfy the same relation. Moreover, this recursion relation is effective: it allows an actual computation. This recursion has been axiomatized into a definition of some "new invariants" of curves. In this lecture we shall introduce the topological recursion, illustrate it on examples and mention its beautiful properties.

Vendredi 2 octobre 2015 / Friday, October 2, 2015
 (Conférence s'adressant à un public mathématique non spécialisé / Suitable for a non-specialized mathematical audience)

Centre de recherches mathématiques
 Pavillon André-Aisenstadt
 Université de Montréal
 Salle / Room 6254
 16h00 / 4:00 pm

Une réception suivra la conférence au Salon Maurice-L'Abbé, Pavillon André-Aisenstadt (Salle 6245)

A reception will follow at the Salon Maurice-L'Abbé, Pavillon André-Aisenstadt (Room 6245).

"Introduction to CFT amplitudes and Hitchin systems"

Building amplitudes from a Hitchin system. Recently it has been observed that there is a relationship between CFT conformal blocks and tau functions of integrable systems. The best known example is Liouville theory 4-point function related to Painlevé VI Tau function. We propose a systematic construction of CFT amplitudes from an arbitrary Hitchin system. This introduces a fascinating geometry.

Vendredi 9 octobre 2015 / Friday, October 9, 2015
 (Conférence s'adressant à un public mathématique non spécialisé / Suitable for a non-specialized mathematical audience)

Centre de recherches mathématiques
 Pavillon André-Aisenstadt
 Université de Montréal
 Salle / Room 5340
 14h00 / 2:00 pm

"CFT amplitudes and Hitchin systems"

Checking that the amplitudes satisfy the CFT axioms: OPEs, Ward identities. Modular invariance and the crossing symmetry, from the geometry of Higgs bundles.

Vendredi 23 octobre 2015 / Friday, October 23, 2015
(Conférence s'adressant à un public averti / Suitable for a more technical audience)

Centre de recherches mathématiques
Pavillon André-Aisenstadt
Université de Montréal
Salle / Room 5340
14h00 / 2:00 pm

<http://www.crm.math.ca/Eynard>
