

De: Centre de recherches mathématiques crm@crm.umontreal.ca
Objet: CONFÉRENCE PRIX CRM-FIELDS-PIMS 2018 - VENDREDI 6 AVRIL - Jeremy Quastel (University of Toronto)
Date: 4 avril 2018 12:55
À: Activités CRM activites@crm.umontreal.ca



CONFÉRENCE PRIX CRM-FIELDS-PIMS 2018

CONFÉRENCIER(S) / SPEAKER(S) :
Jeremy Quastel (University of Toronto)

TITRE / TITLE :
"The KPZ fixed point"

LIEU / PLACE :
CRM, UdeM, Pav. André-Aisenstadt, 2920, ch. de la Tour, salle 6254

DATE :
Le vendredi 6 avril 2018 / Friday, April 6, 2018

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

RESUME / ABSTRACT :
Fluctuation universality classes are a theme in probability. The (1d) KPZ class contains random growth models, directed random polymers, stochastic Hamilton-Jacobi equations (e.g. the eponymous Kardar-Parisi-Zhang equation, which led to a 2014 Fields medal). It is characterized by unusual fluctuations, some of which appeared earlier in random matrix theory, and which are model independent, but do depend on the initial data, the physical explanation being that on large scales everything approaches a scaling invariant fixed point. But most such fixed points are a complete mystery, and for KPZ there was not even a conjecture. Last year, in joint work with K. Matetski and D. Remenik, we succeeded in solving the most studied discretization of the KPZ equation, TASEP, and passing to the limit to obtain a complete description of the KPZ fixed point. They are a new type of "stochastic integrable system", linearized through a "Brownian scattering transform".

Le café sera servi à 15h30 et une réception suivra la conférence au Salon Maurice-L'Abbé (salle 6245).

Coffee will be served before the conference and a reception will follow at Salon Maurice-L'Abbé (Room 6245).

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