De: **CRM** CRM@CRM.UMontreal.CA
Objet: ** AUJOURD'HUI ** COLLOQUE DES SCIENCES MATHÉMATIQUES DU QUÉBEC (17/03/2017, Sayan Mukherjee)
Date: 17 mars 2017 10:04
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 17 mars 2017 / Friday, March 17, 2017

HEURE / TIME :
15 h 30 - 16 h 30 / 3:30 p.m. - 4:30 p.m.

CONFERENCIER(S) / SPEAKER(S) :
Sayan Mukherjee (Duke University)

TITRE / TITLE :
Inference in Dynamical Systems

LIEU / PLACE :
McGill University, Burnside Hall, 805 Sherbrooke Ouest, salle 1205

RESUME / ABSTRACT :
We consider the asymptotic consistency of maximum likelihood parameter estimation for dynamical systems observed with noise. Under suitable conditions on the dynamical systems and the observations, we show that maximum likelihood parameter estimation is consistent. Furthermore, we show how some well-studied properties of dynamical systems imply the general statistical properties related to maximum likelihood estimation. Finally, we exhibit classical families of dynamical systems for which maximum likelihood estimation is consistent. Examples include shifts of finite type with Gibbs measures and Axiom A attractors with SRB measures. We also relate Bayesian inference to the thermodynamic formalism in tracking dynamical systems.

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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)
Hugh Thomas (UQÀM)
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