SEMPARIS – Séminaires en région parisienne

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TBA

Lundi 12 Décembre 2016, 14 :30
IHES, Amphithéâtre Léon Motchane(Séminaire Géométrie et groupes discrets)
Domaines : hep-th

Titre : *Vanishing simplicial volume for certain affine manifolds*

Orateur : **Michelle Bucher (Université de Genève)**

Résumé : *Affine manifolds, i.e. manifolds which admit charts given by affine transformations, remain mysterious by the very few explicit examples and their famous open conjectures : the Auslander Conjecture, the Chern Conjecture and the Markus Conjecture. I will discuss an intermediate conjecture, somehow between the Auslander Conjecture and the Chern Conjecture, predicting the vanishing of the simplicial volume of affine manifolds. In a joint work with Chris Connell and Jean-François Lafont, we prove the latter conjecture under some hypothesis, thus providing further evidence for the veracity of the Auslander and Chern Conjectures. To do so, we provide a simple cohomological criterion for aspherical manifolds with normal amenable subgroups in their fundamental group to have vanishing simplicial volume. This answers a special case of a question due to Lück.*

Joint with Chris Connell and Jean-François Lafont.