

Exposé du jeudi 21 mai 2015

**GAGA THEOREM FOR STACKS AND AN APPLICATION
TO ENUMERATIVE GEOMETRY**

TONY YUE YU (PARIS 7)

Résumé : In the first part of my talk, I will present a generalization of Serre's GAGA theorem to (higher) stacks, which relates algebraic geometry with analytic geometry. I will also explain how the machinery of infinity categories are used to simplify the theory. It is based on the preprint [arXiv:1412.5166](https://arxiv.org/abs/1412.5166) joint with M. Porta.

In the second part of my talk, I will present an application of the first part to enumerative geometry. Namely, the enumeration of holomorphic cylinders in log Calabi-Yau surfaces. I will do an explicit computation for a del Pezzo surface, which verifies the Kontsevich-Soibelman wall-crossing formula for a focus-focus singularity.

1. Les jeudis matin, de 10 h 30 à 11 h 30, salle 004, IRMAR (bâtiment 22), Université de Rennes 1, Campus de Beaulieu