

Séminaire de Mathématique

Amphithéâtre Léon Motchane

Lundi 31 octobre 2011

14h 45 **Olivia CARMELLO** (University of Cambridge & IHÉS)

Toposes as 'bridges' for unifying Mathematics

Abstract: I will propose a new view of Grothendieck toposes as unifying spaces in Mathematics being able to serve as 'bridges' for transferring information between distinct mathematical theories. This approach, first introduced in my Ph.D. dissertation, has already generated ramifications into different mathematical fields and points towards a realization of Topos Theory as a unifying theory of Mathematics. In the talk, I will explain the fundamental principles that characterize my view of toposes as unifying spaces, and demonstrate the technical usefulness of these methodologies by providing applications in several distinct areas including Model Theory, Algebra, Geometry and Topology. The analysis will be complemented by analogies with Genetics, Astronomy and Linguistics.

LE BOIS-MARIE, 35, ROUTE DE CHARTRES, F-91440 BURES-SUR-YVETTE, FRANCE
téléphone : 01 60 92 66 00 • télécopie : 01 60 92 66 09 • cour. élect. : cecile@ihes.fr • site internet : www.ihes.fr

RER ligne B, direction Saint-Rémy-lès-Chevreuse, arrêt Bures-sur-Yvette