

# Category Theory Seminar

The Graduate Center of The City University of New York  
365 Fifth Avenue (at 34th Street)  
(Diagonally across from the Empire State Building)  
New York, NY 10016-4309

**Olivia Caramello**

Cambridge University



## The Unification of Mathematics via Topos Theory

Tuesday, September 27, 2011 6:00 - 7:00 PM., Room TBA

**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.