

Séminaire d'algèbre, topologie et géométrie
Jeudi 2 mai à 16h
Salle I

Tom Hirschowitz

Chambery

Familial monads and structural operational semantics

Attention : heure inhabituelle

Structural operational semantics is a standard method for specifying the syntax and dynamics of programming languages. We propose a categorical framework for structural operational semantics, in which we prove that under suitable hypotheses bisimilarity is a congruence. We then refine the framework to prove soundness of bisimulation up to context, an efficient method for reducing the size of bisimulation relations. Finally, we demonstrate the flexibility of our approach by reproving known results in three variants of the π -calculus.