
FLORENCE CLERC, McGill

Presenting a Category Modulo a Rewriting System

Presentations of categories is a useful tool to describe categories by the means of generators for objects and morphisms and relations on morphisms. However problems arise when trying to generalize this construction when objects are considered modulo an equivalence. Three different constructions can be used to describe such generalization : localization, quotient and considering only normal forms with respect to a certain rewriting system.

I will present some work done in collaboration with S.Mimram and P.L.Curien. We assume two kinds of hypotheses, namely convergence and cylinder property (which is some higher-dimensional convergence). Under these assumptions, we prove that there is an equivalence of categories between the quotient and the localization, and an isomorphism of categories between the quotient and the category of normal forms.