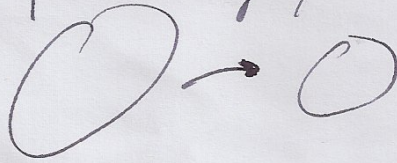


Classification Theory June 2, 2009



If have topology on morphisms such that composition continuous, and have ^(distinct) a notion of inner automorphism, then get category if divide out by inner automorphisms, and also if pass to closures of equivalence classes of morphisms modulo inner.

Miracle 1. In many cases this quotient category is a classifying category.

Miracle 2. In many cases, ^{in addition,} this quotient category can be expressed in a different way (different objects, but equivalent category) — sometimes recognizable from a completely different setting.
(AF algebras — certain ordered groups.)

Miracle 3. In ^{many} ~~some~~ cases, ^{in addition,} the functor to the quotient category can be expressed directly in terms of the equivalent category.