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Algebraically coherent categories

We call a finitely complete category *algebraically coherent* when the change-of-base functors of its fibration of points are *coherent*, which means that they preserve finite limits and jointly strongly epimorphic pairs of arrows. We give examples of categories satisfying this condition; for instance, coherent categories, *categories of interest*, and (compact) Hausdorff algebras over a semi-abelian algebraically coherent theory. We study equivalent conditions in the context of semi-abelian categories, as well as some of its consequences: including amongst others, strong protomodularity, and normality of Higgins commutators for normal subobjects, and in the varietal case, fibre-wise algebraic cartesian closedness.

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