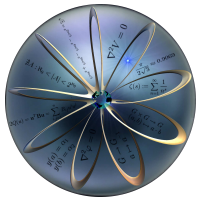

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section functor

Canonical name	SectionFunctor
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Defines	localizing subcategory

1 Essential data

Let us consider an Abelian category $\mathcal{C}$ which is locally small and a dense subcategory $\mathcal{A}$ of $\mathcal{C}$, with $T : \mathcal{C} \to \mathcal{C}/\mathcal{A}$ being the canonical functor. Moreover, let us assume that T has a right adjoint denoted by S such that one has the following functorial isomorphism, or natural equivalence:

$$Hom_{\mathcal{C}}(X, S(Y)) \cong Hom_{\mathcal{C}/\mathcal{A}}$$

.

Definition 1.1. The right adjoint functor

$$S : \mathcal{C}/\mathcal{A} \to \mathcal{C}$$

of T– which is specified by the essential data above– is called a *section functor*.

Note: the category $\mathcal{A}$ is defined as a *localizing subcategory*.