List of Symbols

a) non alphabetical

$[X,Y]$	set of morphisms $X \longrightarrow Y$	
$[\underline{A},\underline{B}]$	category of functors $\underline{A} \longrightarrow \underline{B}$	
$\underline{A}(\alpha)$	full subcategory of a category $\underline{A}$ consisting of all α-presentable objects	2.8
$\tilde{\underline{A}}(\alpha)$	full subcategory of a category $\underline{A}$ consisting of all α-generated objects.	2.8
$\bar{\Sigma}$	closure of a class Σ of morphisms	
$\underline{A}_{\Sigma,T}$	full subcategory of a category $\underline{A}$ consisting of all objects $X \in \underline{A}$ such that $T(\sigma,X)$ is an isomorphism for every $\sigma \in \Sigma$, where $T : \underline{B} \times \underline{A} \longrightarrow \underline{C}$ is a given bifunctor and Σ a class of morphisms in $\underline{B}$	6.
$\underline{A}_{\mathbb{G}}$	category of all $\mathbb{G}$-coalgebras in $\underline{A}$ for some cotriple $\mathbb{G}$	4.1o
$\underline{A}^{\mathbb{T}}$	category of all $\mathbb{T}$-algebras in $\underline{A}$ for some triple $\mathbb{T}$	4.13
${}_{\Lambda}\underline{A}$	category of left Λ-objects in $\underline{A}$	6.4

b) alphabetical

$Adj(\underline{A},\underline{B})$	category of all functors $\underline{A} \longrightarrow \underline{B}$ admitting a right adjoint	6.18
$\mathfrak{M}\text{-}\underline{Mod}_R$	full subcategory of $\underline{Mod}_R$ consisting of all R-modules A such that every cyclic submodule (a) is a quotient of $R/\mathfrak{M}^n$ for some $n \geq 1$ depending on a	6.25
$Bialg_{M,R}(\underline{A})$	category of bialgebras in $\underline{A}$ with respect to operations M and relations R	3.1
$\Lambda\text{-}\underline{Bialg}$	category of bialgebras over a commutative ring Λ	4.4
$\underline{Bimod}_H$	category of bimodules over a bialgebra H	4.9

$\underline{Cat}$	category of small categories	4.26
$card(S)$	cardinality of a set S	
Λ-$\underline{Coalg}$	category of Λ-coalgebras over a commutative ring Λ	4.3
$C_\Sigma[\underline{U},\underline{X}]$	full subcategory of $[\underline{U},\underline{X}]$ consisting of all Σ-continuous functors	2.1o
$Cc_\Sigma[\underline{U},\underline{X}]$	full subcategory of $[\underline{U},\underline{X}]$ consisting of all Σ-cocontinuous functors	2.1o
$Cocont[\underline{A},\underline{B}]$	category of all cocontinuous functors $\underline{A} \longrightarrow \underline{B}$	
$\underline{Comod}_C$	category of right comodules over a coalgebra C	4.8
$\underline{Comp}$	category of compact spaces	4.1
$Csh_\tau[\underline{U},\underline{X}]$	category of all $\underline{X}$-valued τ-cosheaves on a site $(\underline{U},\tau)$	6.17
$\underline{D}_{A,f}$	category of factorizations $U \xrightarrow{g_i} U_i \xrightarrow{f_i} A$ of a morphism $U \xrightarrow{f} A$	3.13
$\underline{D}(A,M)$	category of bialgebras over a pre-bialgebra (A,M) whose underlying object in $\underline{A}$ is γ-presentable	3.17
$\underline{D}(A,M,R)$	category of bialgebras over a bialgebra (A,M,R) whose underlying object in $\underline{A}$ is γ-presentable	3.18
$Desc(\underline{\mathfrak{F}}_{S_o})$	category of descent data with respect to a fibration $\mathfrak{F}$ and a morphism $\alpha : S_o \to S$ in the base	4.14
$\varepsilon(A)$	generation rank of an object A	2.2
$\varepsilon(\underline{A})$	generation rank of a category $\underline{A}$	2.3
$\varepsilon(F)$	generation rank of a functor F	2.1
$\mathbb{F}$	class of all functors which are domain or codomain of a given class of operations and relations	3.1
$\mathbb{F}_c$	subclass of all functors of $\mathbb{F}$ which are the codomain of either an operation or a relation	3.1
$\mathbb{F}_d$	subclass of all functors of $\mathbb{F}$ which are the domain of either an operation or a relation	3.1

$\mathcal{F}_{\underline{X}}$	fibre over an object with respect to a fibration $\mathcal{F}$	4.14
$\mathcal{F}_{\Lambda\underline{X}}$	full subcategory of $_{\Lambda}\underline{X}$ consisting of all uniquely $\mathcal{F}$-divisible objects for a filter $\mathcal{F}$ of right ideals in Λ	6.25
$\mathrm{Hom}_{\underline{B}}(\underline{B},\underline{E})$	category of sections with respect to a fibration $p : \underline{E} \longrightarrow \underline{B}$	4.19
$\mathrm{Homcart}_{\underline{B}}(\underline{B},\underline{E})$	full subcategory of $\mathrm{Hom}_{\underline{B}}(\underline{B},\underline{E})$ consisting of all cartesian closed sections with respect to a fibration	4.19
$(\underline{\mathrm{Mod}}_{\Lambda})_{\mathcal{F}}$	full subcategory of $\underline{\mathrm{Mod}}_{\Lambda}$ consisting of all $\mathcal{F}$-closed modules	6.25
$\pi(A)$	presentation rank of an object A	2.2
$\pi(\underline{A})$	presentation rank of a category $\underline{A}$	2.3
$\pi(F)$	presentation rank of a functor F	2.1
$\text{P-Bialg}_{M}(\underline{A})$	category of pre-bialgebras in $\underline{A}$ with respect to M	3.1
$\mathrm{rank}_{\Sigma}(T)$	least cardinal $\delta \geq \pi(\underline{A})$ such that for every $\sigma \in \Sigma$ and every $\pi(\underline{A})$-presentable object $U \in \underline{A}$ the objects $T(d\sigma,U)$ and $T(r\sigma,U)$ are δ presentable	6.4
$\mathrm{rank}_{M}(T)$	likewise	6.4

Index