

サンプルー diagram

@paper3510mm*

subproof 環境

∴) これは, Sheaves in Geometry and Logic を読んでまとめたノートである. 翻訳という訳でもないので, SGL に載っているすべての情報を含んでいないし, 議論の順番も一部変更してあるので, 注意されたい.

(a)

$$F(U) \xrightarrow{e} \prod_{i \in I} F(U_i) \xrightleftharpoons[q]{p} \prod_{i,j \in I} F(U_i \cap U_j)$$

(b)

$$s(G)(U) \dashrightarrow \prod_{i \in I} G(B_i) \xrightleftharpoons[q]{p} \prod_{i,j \in I} G(B_i \cap B_j)$$

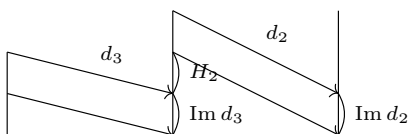
(c)

$$\begin{array}{ccccc} s(G)(U) & \longrightarrow & \prod_{i \in I} G(B_i) & \xrightleftharpoons[q]{p} & \prod_{i,j \in I} G(B_i \cap B_j) \\ \downarrow \text{dashed} & & \downarrow & & \downarrow \\ s(G)(U') & \longrightarrow & \prod_{i \in I} G(B'_i) & \xrightleftharpoons[q]{p} & \prod_{i,j \in I} G(B'_i \cap B'_j) \end{array}$$

(d)

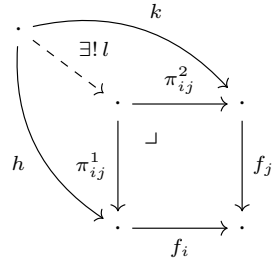
$$\Gamma_p(U) \xrightarrow{e} \prod_i \Gamma_p(U_i) \xrightleftharpoons[q]{p} \prod_{i,j} \Gamma_p(U_i \cap U_j)$$

(e)



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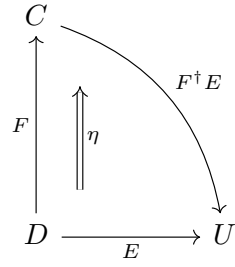
(f)



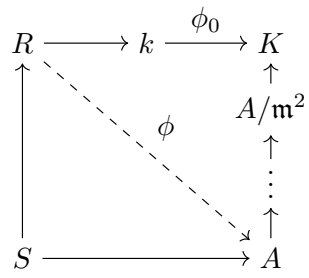
(g)

$$\begin{array}{ccccccc}
 & & B'^{\star} = B' \otimes_S S^{\star} & \longrightarrow & B^{\star} & & \\
 & & \uparrow & & \uparrow & & \\
 A & \longrightarrow & A_{\mathfrak{p}_0} = B' & \longrightarrow & A_{\mathfrak{p}} = B & \longrightarrow & L \\
 \uparrow & & \uparrow & & & & \uparrow \\
 R & \longrightarrow & R_{\mathfrak{p}_0} = S & \longrightarrow & & \longrightarrow & K
 \end{array}$$

(h)



(i)



(j)

$$\begin{array}{ccccc}
 \Omega: \mathbf{Top} & \longrightarrow & \mathbf{Frm}^{\mathrm{op}} & & \\
 \Psi & & \Psi & & \\
 (X, \mathcal{O}_X) & \longmapsto & \mathcal{O}_X & \ni f^{-1}(U) & \\
 f \downarrow & \longmapsto & \uparrow f^{-1}[-] & \uparrow & \\
 (Y, \mathcal{O}_Y) & \longmapsto & \mathcal{O}_Y & \ni U &
 \end{array}$$

(k)

$$\begin{array}{rcl}
B & Q_{r+s} \supset \cdots \supset Q_r & \\
& \cup & \\
& \vdots & \\
& \cup & \\
& Q_0 &
\end{array}$$

$$A \qquad \mathfrak{p} = \mathfrak{p}_s \supset \cdots \supset \mathfrak{q}$$

(l)

$$\begin{array}{ccc}
A^q & \xrightarrow{F} & A \\
\wr \downarrow F & & \wr \downarrow F \\
A^{q^2} & \xrightarrow{F} & A^q
\end{array}$$

(m)

$$\begin{array}{ccccc}
& & X & & \\
& \nearrow x & \uparrow & & \\
S & \overset{\exists!}{\dashrightarrow} & X \times Y & & \\
& \searrow y & \downarrow & & \\
& & Y & &
\end{array}$$

(n)

$$\begin{array}{ccc}
& \mathbb{L}F \circ Q_{\mathcal{E}} & \\
\swarrow & & \searrow \\
G \circ Q_{\mathcal{E}} & \xrightarrow{\quad\quad\quad} & Q_{\mathcal{F}} \circ F
\end{array}$$

$$\begin{array}{ccc}
& \mathbb{L}F \circ Q_{\mathcal{E}} & \\
\bar{\xi} \circ Q_{\mathcal{E}} \swarrow & & \searrow \varepsilon \\
G \circ Q_{\mathcal{E}} & \xrightarrow[\xi]{\quad\quad\quad} & Q_{\mathcal{F}} \circ F
\end{array}$$