

$$\begin{array}{ccccc}
& A & \xlongequal{\quad} & A & \\
& \downarrow i & & \downarrow a & \\
X & \xrightarrow{p} & E & \xrightarrow{\lambda} & B \\
\parallel & & \downarrow q & & \downarrow b \\
X & \xrightarrow{q \circ p} & Y & \xrightarrow{\pi} & Z & \xrightarrow{\delta} \\
& & \downarrow \eta & & \downarrow \eta' & 
\end{array}$$

pgfex-

tra;[/tikz/commutative diagrams/.cd,every arrow,equals, from=1-3, to=1-4](-4-4) to (-4-4); [/tikz/commutative diagrams/.cd,every arrow,"i", from=1-3, to=2-3](-4-4) to (-4-4); [/tikz/commutative diagrams/.cd,every arrow,"a", from=1-4, to=2-4](-4-4) to (-4-4); [/tikz/commutative diagrams/.cd,every arrow,"p", from=2-2, to=2-3](-4-4) to (-4-4); [/tikz/commutative diagrams/.cd,every arrow,equals, from=2-2, to=3-2](-4-4) to (-4-4); [/tikz/commutative diagrams/.cd,every arrow,"λ",from = 2 - 3,to = 2 - 4](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"q",from = 2 - 3,to = 3 - 3](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"b",from = 2 - 4,to = 3 - 4](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"q ∘ p",from = 3 - 2,to = 3 - 3](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"π",from = 3 - 3,to = 3 - 4](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"η",from = 3 - 3,to = 4 - 3](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"δ",from = 3 - 4,to = 3 - 5](-4 - 4)to(-4 - 4);[/tikz/commutativediagrams/.cd,everyarrow,"η'",from = 3 - 4,to = 4 - 4](-4 - 4)to(-4 - 4);