

$$\begin{array}{ccccccc}
 \mathrm{im}(\alpha_0) & \hookrightarrow & \mathrm{im}(\alpha_1) & \hookrightarrow & \cdots & \hookrightarrow & \varinjlim_{\beta < \gamma}^{fil} (\alpha_\beta) & \hookrightarrow & \mathrm{im}(\alpha_\gamma) \\
 & \nearrow & \downarrow & & \nearrow & & \downarrow & & \nearrow \\
 P_0 & \xrightarrow{\alpha_0} & P_1 & \xrightarrow{\alpha_1} & P_2 & \xrightarrow{\alpha_2} & \cdots & & P_\gamma & \xrightarrow{\alpha_\gamma} & P_{\gamma+1} \\
 & \searrow & \searrow & & \searrow & & \searrow & & \searrow & & \searrow \\
 & & & & M & & & & & & M
 \end{array}$$

The diagram illustrates a sequence of objects $P_0, P_1, P_2, \dots, P_\gamma, P_{\gamma+1}$ and their images under maps α_i . The top row shows the images $\mathrm{im}(\alpha_0), \mathrm{im}(\alpha_1), \dots, \varinjlim_{\beta < \gamma}^{fil} (\alpha_\beta), \mathrm{im}(\alpha_\gamma)$ connected by monomorphisms (\hookrightarrow). The middle row shows the objects P_i connected by maps α_i . The bottom row shows the object M . Arrows indicate the following relationships:

- Diagonal arrows from P_i to $\mathrm{im}(\alpha_i)$ and from $\mathrm{im}(\alpha_i)$ to P_{i+1} for $i = 0, 1, \dots, \gamma$.
- Vertical arrows from $\mathrm{im}(\alpha_i)$ to P_{i+1} for $i = 0, 1, \dots, \gamma$.
- Horizontal arrows $P_i \xrightarrow{\alpha_i} P_{i+1}$ for $i = 0, 1, 2, \dots, \gamma$.
- Arrows from $P_0, P_1, P_2, P_\gamma, P_{\gamma+1}$ to M .