

$$\begin{array}{ccccccc}
& & & & & P & \\
& & & & \swarrow \scriptstyle l & \downarrow \scriptstyle p & \\
0 & \longrightarrow & N \cap \ker p & \hookrightarrow & N & \twoheadrightarrow & M \longrightarrow 0 \\
& & \downarrow & & \downarrow \scriptstyle \lambda & & \parallel \\
0 & \longrightarrow & \ker p & \hookrightarrow & P & \xrightarrow{\scriptstyle p} & M \longrightarrow 0
\end{array}$$