

$$\begin{array}{ccccc} & & \varphi & & \\ G_1 & \xrightarrow{\hspace{10cm}} & \varphi(G_1) & \xleftarrow{\hspace{10cm}} & G_2 \\ \pi_{G_1/\ker(\varphi)} \downarrow & \searrow & & \nearrow & \bar{\varphi} \\ & G_1/\ker(\varphi) & \dashrightarrow & & \end{array}$$