

$$\begin{array}{ccccc}
 & p_1 & G_{k,ab}(p_1, p_2) & p_2 & \\
 & \xrightarrow{\quad\quad\quad} & & \xrightarrow{\quad\quad\quad} & \\
 \varphi_a & \xrightarrow{\quad\quad\quad} & \text{[Hatched Circle]} & \xrightarrow{\quad\quad\quad} & \varphi_b
 \end{array}$$