

$$\begin{array}{ccccccc}
\cdots & \longrightarrow & MC_{k_1, l_1}(G) \otimes MC_{k_2, l_2}(H) & \xrightarrow{\partial \otimes \partial} & (MC_{k_1-1, l_1}(G) \otimes MC_{k_2, l_2}(H)) \oplus (MC_{k_1, l_1}(G) \otimes MC_{k_2-1, l_2}(H)) & \longrightarrow & \cdots \\
& & \downarrow \square & \circlearrowleft & \downarrow \square & & \\
\cdots & \longrightarrow & MC_{k, l}(G \square H) & \xrightarrow{\partial} & MC_{k-1, l}(G \square H) & \longrightarrow & \cdots
\end{array}$$