

$$\begin{array}{ccccccc}
\pi_{i+2}(B_m(\alpha)) & \xrightarrow{p_*} & \pi_{i+2}(S^{2m+2p-1}) & \xrightarrow{\partial_\alpha} & \pi_{i+1}(S^{2m+1}) & \xrightarrow{i_*} & \pi_{i+1}(B_m(\alpha)) \\
\downarrow E^2 & & \downarrow E^2 & & \downarrow E^2 & & \downarrow E^2 \\
\pi_{i+4}(B_{m+1}(\alpha)) & \xrightarrow{p_*} & \pi_{i+4}(S^{2m+2p+1}) & \xrightarrow{\partial_\alpha} & \pi_{i+3}(S^{2m+3}) & \xrightarrow{i_*} & \pi_{i+3}(B_{m+1}(\alpha)) \\
\downarrow H & & \downarrow H & & \downarrow H & & \downarrow H \\
\pi_{i+1}(QB_m(\alpha)) & \xrightarrow{p_*} & \pi_{i+1}(Q_2^{2m+2p-1}) & \xrightarrow{\partial_\alpha} & \pi_i(Q_2^{2m+1}) & \xrightarrow{i_*} & \pi_i(QB_m(\alpha)) \\
\downarrow P & & \downarrow P & & \downarrow P & & \downarrow P \\
\pi_{i+1}(B_m(\alpha)) & \xrightarrow{p_*} & \pi_{i+1}(S^{2m+2p-1}) & \xrightarrow{\partial_\alpha} & \pi_i(S^{2m+1}) & \xrightarrow{i_*} & \pi_i(B_m(\alpha))
\end{array}$$