

$$\begin{array}{ccccc}
M^n \oplus M^{n-1} & \xrightarrow{\begin{pmatrix} 0 & 0 \\ 1 & 0 \end{pmatrix}} & M^{n+1} \oplus M^n & \xrightarrow{\begin{pmatrix} 0 & 0 \\ 1 & 0 \end{pmatrix}} & M^{n+2} \oplus M^{n+1} \\
(f_n, d_C^{n-1} \circ f_{n-1}) \downarrow & & (f_{n+1}, d_C^n \circ f_n) \downarrow & & (f_{n+2}, d_C^{n+1} \circ f_{n+1}) \downarrow \\
C^n & \xrightarrow{d_C^n} & C^{n+1} & \xrightarrow{d_C^{n+1}} & C^{n+2}
\end{array}$$