

$$\begin{array}{ccccccc}
& & \cdots & & \cdots & & \cdots \\
& & \uparrow & & \uparrow & & \uparrow \\
0 \longrightarrow & \Omega^2(M) & \xrightarrow{r} & \prod_{\alpha} \Omega^2(U_{\alpha}) & \longrightarrow & \prod_{\alpha_0 < \alpha_1} \Omega^2(U_{\alpha_0 \alpha_1}) & \longrightarrow \prod_{\alpha_0 < \alpha_1 < \alpha_2} \Omega^2(U_{\alpha_0 \alpha_1 \alpha_2}) \longrightarrow \dots \\
& & \uparrow & & \uparrow & & \uparrow \\
0 \longrightarrow & \Omega^1(M) & \xrightarrow{r} & \prod_{\alpha} \Omega^1(U_{\alpha}) & \longrightarrow & \prod_{\alpha_0 < \alpha_1} \Omega^1(U_{\alpha_0 \alpha_1}) & \longrightarrow \prod_{\alpha_0 < \alpha_1 < \alpha_2} \Omega^1(U_{\alpha_0 \alpha_1 \alpha_2}) \longrightarrow \dots \\
& & \uparrow & & \uparrow & & \uparrow \\
0 \longrightarrow & \Omega^0(M) & \xrightarrow{r} & \prod_{\alpha} \Omega^0(U_{\alpha}) & \xrightarrow{\delta} & \prod_{\alpha_0 < \alpha_1} \Omega^0(U_{\alpha_0 \alpha_1}) & \longrightarrow \prod_{\alpha_0 < \alpha_1 < \alpha_2} \Omega^0(U_{\alpha_0 \alpha_1 \alpha_2}) \longrightarrow \dots \\
& & \uparrow i & & \uparrow i & & \uparrow i \\
& & C^0(\mathfrak{U}, \mathbb{R}) & \xrightarrow{\delta} & C^1(\mathfrak{U}, \mathbb{R}) & \xrightarrow{\delta} & C^2(\mathfrak{U}, \mathbb{R}) \longrightarrow \dots \\
& & \uparrow & & \uparrow & & \uparrow \\
& & 0 & & 0 & & 0
\end{array}$$