ive resolution, and $\beta(e_1) = f_1$, $\beta(e_2) = f_2$

$$\begin{tikzcd}
\mathcal{O} \arrow[d, "?"] \arrow[dr, "\alpha"] & \ni h \arrow[dr, mapsto] & \\
\mathcal{O} \arrow[r, "\alpha"] & E & \ni h(-f_2 e_1 + f_1 e_2)
\end{tikzcd}$$

Since $\beta(-f_2 e_1 + f_1 e_2) = 0$, $\exists\ l \in \mathcal{O}$ s.t $\alpha(l) = -f_2 e_1 + f_1 e_2$. $\Rightarrow$ Define $\phi_l : \mathcal{O} \to \mathcal{O}$ by $\phi_l(h) = hl$.

$\Rightarrow$ The diagrame is commutative.

From the exact sequence

$$\mathrm{Hom}_{\mathcal{O}}(\mathcal{O}, \mathcal{O}) \xrightarrow{\partial} \mathrm{Ext}^1_{\mathcal{O}}(I, \mathcal{O}) \longrightarrow \mathrm{Ext}^1_{\mathcal{O}}(E, \mathcal{O}),$$

$\ni \mathrm{id}_{\mathcal{O}}$

we have to show that $[\phi_l] \in \mathrm{Ext}^1_{\mathcal{O}}(I, \mathcal{O})$ is equal to $-\partial(\mathrm{id}_{\mathcal{O}})$.

$$\begin{tikzcd}
 & 0 & 0 & 0 & \\
0 \arrow[r] & \mathcal{O} \arrow[u] \arrow[r, "\alpha"] & E \arrow[u] \arrow[r, "\beta"] & I \arrow[u] \arrow[r] & 0 \\
0 \arrow[r] & \mathcal{O} \arrow[u, equal] \arrow[r] & \mathcal{O} \oplus (\mathcal{O} \oplus \mathcal{O}) \arrow[u] \arrow[r] & \mathcal{O} \oplus \mathcal{O} \arrow[u] \arrow[r] & 0 \\
0 \arrow[r] & 0 \arrow[u] \arrow[r] & \mathcal{O} \arrow[u] \arrow[r] & \mathcal{O} \arrow[u] \arrow[r] & 0 \\
 & 0 \arrow[u] & 0 \arrow[u] & 0 \arrow[u] &
\end{tikzcd}$$

$\alpha(g) + g_1 e_1 + g_2 e_2$ $\qquad$ $g_1 f_1 + g_2 f_2$

$(g, g_1, g_2) \longmapsto (g_1, g_2)$

$(-hl, -hf_2, hf_1)$ $\qquad$ $(-hf_2, hf_1)$.

$\ni h \longmapsto h$