$$\Rightarrow \quad \underline{\mathrm{Ext}}^0_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*) = \underline{\mathrm{Hom}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*) \cong \Lambda^n \mathcal{E}^*.$$

$$E_2^{n,0} = H^n(M, \Lambda^n \mathcal{E}^*).$$

$$\begin{array}{ccccc} E_2^{n-2,-1} & \longrightarrow & E_2^{n,0} & \longrightarrow & E_2^{n+2,1} \\ \| & & & & \| \\ 0 & & & & 0 \end{array} \quad \Rightarrow \quad E_3^{n,0} = E_2^{n,0} = E_4^{n,0} = \cdots E_n^{n,0}$$

$$\begin{array}{ccccc} E_{n-1}^{1,n-2} & \longrightarrow & E_{n-1}^{n,0} & \longrightarrow & E_{n-1}^{2n-1,1} \\ \| & & & & \| \\ E_2^{1,n-1-1} & & & & 0 \\ \| & & & & \\ H^1(M, \underline{\mathrm{Ext}}^{n-2}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*)) = 0 & & & & \end{array}$$

$\sqcup$

For each $p \in Z$ there is an induced local extension class

$$e_p \in \underline{\mathrm{Ext}}^{n-1}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*)_p,$$

where $\bigoplus_{p \in Z} e_p \in H^0(M, \underline{\mathrm{Ext}}^{n-1}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*))$ is the image of e, and therefore satisfies

$$d_n \Big(\bigoplus_{p \in Z} e_p \Big) = 0 \quad \text{in } H^n(M, \Lambda^n \mathcal{E}^*).$$

We will interpret this relation as a residue theorem.

Г By the explanation on p127,

$$\begin{array}{ccc} \mathrm{Ext}^{n-1}(M; \mathcal{J}_Z, \Lambda^n \mathcal{E}^*) & \longrightarrow & \underline{\mathrm{Ext}}^{n-1}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E})_p \\ \ni e & \longmapsto & \ni e_p \end{array}$$

$$H^0(M, \underline{\mathrm{Ext}}^{n-1}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*)) = \bigoplus_{p \in Z} \underline{\mathrm{Ext}}^{n-1}_{\mathcal{O}}(\mathcal{J}_Z, \Lambda^n \mathcal{E}^*)_p$$