and $\underline{Ext}^2_{\mathcal{O}}(\mathcal{O}_P(L), \Omega^2)$ is a skyscraper sheaf concentrated at points $p \in P$ and with stalks canonically isomorphic to $(\mathcal{O}_P(L)_p)^*$:

$$Ext^2(S; \mathcal{O}_P(L), \Omega^2) \cong \bigoplus_{p\in P} (\mathcal{O}_P(L)_p)^*.$$

Pf

$$\underline{Ext}^2_{\mathcal{O}}(\mathcal{O}_P(L), \Omega^2)_p \cong \underline{Ext}^2_{\mathcal{O}_p}(\mathcal{O}_P(L)_p, \Omega^2_p) \quad \text{by } P700$$

$$= \underline{Ext}^2_{\mathcal{O}_p}((\mathcal{O}/\mathcal{J}_P)_p, \Omega^2_p) \cong (\mathcal{O}/\mathcal{J}_P)_p^* \quad \text{by } P693 \text{ Local duality theorem II.}$$

$$\cong (\mathcal{O}_P(L)_p)^*$$

Since $\underline{Ext}^0_{\mathcal{O}}(\mathcal{O}_P(L), \Omega^2) = \underline{Ext}^1_{\mathcal{O}}(\mathcal{O}_P(L), \Omega^2) = 0$, by the second property on P706.

$$Ext^2(S; \mathcal{O}_P(L), \Omega^2) \cong H^0(S, \underline{Ext}^2_{\mathcal{O}}(\mathcal{O}_P(L), \Omega^2))$$

$$\cong \bigoplus_{p\in P} \underline{Ext}^2_{\mathcal{O}_p}((\mathcal{O}_P(L))_p, \Omega^2_p) \quad \text{by } P707$$

$$\cong \bigoplus_{p\in P} (\mathcal{O}_P(L))_p^*$$

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Combining this with (*) and (**) yields

$$0 \to Ext^1(S; \mathcal{J}_P(L), \Omega^2) \to \{H^0(\mathcal{O}(K+L)) / \{s\omega + s'\omega'\}\} \xrightarrow{\rho} \bigoplus_{p\in P} (\mathcal{O}_P(L)_p)^*.$$

To interpret the mapping ρ, we suppose that $\psi \in H^0(\mathcal{O}(K+L))$ and $\eta \in \mathcal{O}_P(L)_p$. Then