

Thus we have a map

$$\begin{array}{ccc}
 \text{Ext}^1(S; f(L), \Omega^2) & \longrightarrow & \text{Ext}^2(S; \frac{\mathcal{O}(L)}{f_p(L)}, \Omega^2) \\
 & & \parallel \\
 & & \text{Ext}^2(S; \mathcal{O}_p(L), \Omega^2) \\
 \downarrow \psi & \longrightarrow & \downarrow -\psi \quad \dots (**)
 \end{array}$$

By combining (\*) on P678 note with (\*\*), we set

$$\begin{array}{ccccc}
 & & \rho & & \\
 & & \curvearrowright & & \\
 \text{Ext}^0(S; \mathcal{O}(L^*), \Omega^2) & \longrightarrow & \text{Ext}^1(S; f(L), \Omega^2) & \longrightarrow & \text{Ext}^2(S; \mathcal{O}_p(L), \Omega^2) \\
 \downarrow \psi & & \downarrow -\psi & & \downarrow \psi \\
 \psi & \longrightarrow & -\psi & \longrightarrow & \psi
 \end{array}$$

By Global Duality Theorem II on P708,

$$\begin{array}{ccc}
 H^0(S, \mathcal{O}_p(L)) \otimes \text{Ext}^2(S; \mathcal{O}_p(L), \Omega^2) & \longrightarrow & \mathbb{C} \\
 \uparrow \rho'_* \eta & & \parallel \\
 & \downarrow \rho'^* \psi &
 \end{array}$$

$$H^0(S, \mathcal{O}_p(L)) \otimes \text{Ext}^2(S; \mathcal{O}_p(L), \Omega^2) \xrightarrow{\text{res}} \mathbb{C}$$

where  $\rho': \mathcal{O}_p(L) \longrightarrow \mathcal{O}_p(L)$  is an inclusion.

$\Rightarrow$  Given  $\psi \in \text{Ext}^2(S; \mathcal{O}_p(L), \Omega^2)$  and  $\eta \in H^0(S, \mathcal{O}_p(L))$   
 $= \mathcal{O}_p(L)_p = \mathcal{O}_p(L)$ ,

by the commutativity above and the Local Duality Theorem on P693,