

is a "some sort of restriction" to each stalk.

See, for example  $n=2$

$$\begin{array}{ccccccc}
 0 & \longrightarrow & I & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O}/I \longrightarrow 0 \\
 & & \uparrow & & \uparrow & & \uparrow \\
 0 & \longrightarrow & \mathcal{O} \oplus \mathcal{O} & \longrightarrow & (\mathcal{O} \oplus \mathcal{O}) \oplus \mathcal{O} & \longrightarrow & \mathcal{O} \longrightarrow 0 \\
 & & \uparrow & & \uparrow & & \uparrow \\
 0 & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O} \oplus (\mathcal{O} \oplus \mathcal{O}) & \longrightarrow & \mathcal{O} \oplus \mathcal{O} \longrightarrow 0 \\
 & & \uparrow & & \uparrow & & \uparrow \\
 0 & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O} \longrightarrow 0 \\
 & & \uparrow & & \uparrow & & \uparrow \\
 0 & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O} & \longrightarrow & \mathcal{O} \longrightarrow 0
 \end{array}$$

Take  $\text{Hom}(\_, \mathcal{O})$ , then we can see that

$$\begin{array}{ccc}
 \text{Ext}^1(I, \mathcal{O}) & \longrightarrow & \text{Ext}^2(\mathcal{O}/I, \mathcal{O}) \\
 \downarrow [f] & \longrightarrow & \downarrow [f]
 \end{array}$$

From the above, we know that the map above is a "restriction".  $\square$

For this we consider the vector space  $H^0(M, \mathcal{O}(K \otimes \det E))$  dual to  $H^n(M, \Lambda^n E^*)$ .

By the Kodaira-Serre duality on P153,  
 $H^0(M, \mathcal{O}(K \otimes \det E)) = H^0(M, \Omega^n(\Lambda^n E)) =$