

Comment on the identification.

$$\mathcal{E}(D) \xrightarrow{\otimes s_0} \mathcal{O}(E \otimes [D])$$

Given a holomorphic section $s \in \mathcal{O}(E \otimes [D])$,
 on U_α , \exists a local defining function f_α on U_α for D .
 and $s|_{U_\alpha}$ corresponds to $s_\alpha = (S_{\alpha,1}, S_{\alpha,2})$ where holomorphic
 functions $S_{\alpha,1}, S_{\alpha,2}$ on U_α . for simplicity, we take $n=2$.

\Rightarrow The transition function is ^{given by} $\forall k_{\alpha\beta} = g_{\alpha\beta} h_{\alpha\beta} \Rightarrow k_{\alpha\beta} s_\beta = s_\alpha$
 where $g_{\alpha\beta} = \frac{f_\alpha}{f_\beta}$ $h_{\alpha\beta}$ is the transition function of E .

\Rightarrow Define $\frac{s_\alpha}{f_\alpha} = \left(\frac{S_{\alpha,1}}{f_\alpha}, \frac{S_{\alpha,2}}{f_\alpha} \right) \Rightarrow$

$$h_{\alpha\beta} \frac{s_\beta}{f_\beta} = \frac{g_{\alpha\beta} h_{\alpha\beta} s_\beta}{g_{\alpha\beta} f_\beta} = \frac{k_{\alpha\beta} s_\beta}{f_\alpha} = \frac{s_\alpha}{f_\alpha}$$

$\Rightarrow \left(\frac{s_\alpha}{f_\alpha} \right)$ defines a meromorphic section with poles
 on D .