Note, moreover, that if L is given by multipliers

$$e_{\lambda_\alpha} \equiv 1, \qquad e_{\lambda_{n+\alpha}}(z) = e^{-2\pi i z_\alpha},$$

then $\tau_\mu^* L$ can be given by multipliers

$$e'_{\lambda_\alpha}(z) = e_{\lambda_\alpha}(z+\mu) \equiv 1$$
$$e'_{\lambda_{n+\alpha}}(z) = e_{\lambda_{n+\alpha}}(z+\mu) = e^{-2\pi i(z_\alpha+\mu_\alpha)},$$

i.e., e'_λ will differ from e_λ by multiplication by a constant $e^{-2\pi i \mu_\alpha}$.

⌈ Note that, since $\tau_\mu \circ \pi = \pi \circ \tau_\mu$, $\tau_\mu^*(\pi^* L) = \pi^*(\tau_\mu^* L)$. //

$$L = \frac{V \times \mathbb{C}}{(z, \zeta) \sim (z+\lambda, e_\lambda(z)\cdot\zeta)}.$$

$$\Rightarrow \quad \tau_\mu^* L = \frac{V \times \mathbb{C}}{(z, \zeta) \sim (z+\lambda, e'_\lambda(z)\zeta)} \xrightarrow{\tau_\mu} \frac{V \times \mathbb{C}}{(z, \zeta) \sim (z+\lambda, e_\lambda(z)\cdot\zeta)}.$$

$\Rightarrow \quad \tau_\mu^*([z, \zeta]) = [z-\mu, \zeta]$ by definition of pull-back.

$$// \qquad = [z-\mu+\lambda, e'_\lambda(z-\mu)\cdot\zeta]$$

$$\tau_\mu^*([z+\lambda, e_\lambda(z)\zeta]) = [z+\lambda-\mu, e_\lambda(z)\zeta]$$

$$\Rightarrow \quad e'_\lambda(z-\mu) = e_\lambda(z) \quad \Rightarrow \quad e'_\lambda(z) = e_\lambda(z+\mu).$$

Thus $\quad e'_{\lambda_\alpha}(z) = e_{\lambda_\alpha}(z+\mu) = 1 \quad$ for $\alpha = 1, \cdots n$

$$e'_{\lambda_{\alpha+n}}(z) = e_{\lambda_{\alpha+n}}(z+\mu) = e^{-2\pi i(z_\alpha+\mu_\alpha)}$$

⌋

Conversely, if L' is any line bundle with multipliers $e'_{\lambda_\alpha} \equiv 1$ and $e'_{\lambda_{n+\alpha}} \equiv c_\alpha \cdot e_{\lambda_{n+\alpha}}$, $c_\alpha \in \mathbb{C}^*$, then setting