

$$\Rightarrow \iota(v) \cdot \tilde{\tau} = \sum_{i,j,k} (P_{ki}^j - P_{ik}^j) v^i \cdot \frac{\partial}{\partial z_j} \otimes dz_k.$$

Thus the tensor $E = +Dv + \iota(v) \cdot \tilde{\tau}$

$$= + \sum_{j,k} \left\{ \frac{\partial v^j}{\partial z_k} + \sum_i P_{ki}^j v^i \right\} \frac{\partial}{\partial z_j} \otimes dz_k$$

is a well-defined global section of the holomorphic vector bundle $T' \otimes T'^*$, and

$$\begin{aligned} \bar{\partial} E &= - \sum \left(\frac{\partial}{\partial \bar{z}_\ell} \left\{ \frac{\partial v^j}{\partial z_k} + \sum_i P_{ki}^j v^i \right\} \cdot \frac{\partial}{\partial z_j} \otimes dz_k \right) d\bar{z}_\ell \\ &= - \sum \left(\frac{\partial P_{ki}^j}{\partial \bar{z}_\ell} \cdot v^i \cdot \frac{\partial}{\partial z_j} \otimes dz_k \right) d\bar{z}_\ell. \end{aligned}$$

$$\Gamma \quad E = +Dv + \iota(v) \cdot \tilde{\tau}$$

$$= + \sum_{j,k} \left(\frac{\partial v^j}{\partial z_k} + \sum_i P_{ki}^j v^i \right) \frac{\partial}{\partial z_j} \otimes dz_k$$

$$+ \sum_{i,j,k} (P_{ki}^j - P_{ik}^j) v^i \cdot \frac{\partial}{\partial z_j} \otimes dz_k$$

$$= + \sum \frac{\partial v^j}{\partial z_k} \frac{\partial}{\partial z_j} \otimes dz_k + \sum_{i,j,k} P_{ki}^j v^i \frac{\partial}{\partial z_j} \otimes dz_k$$

$$= \sum_{j,k} \left\{ \frac{\partial v^j}{\partial z_k} + \sum_i P_{ki}^j v^i \right\} \frac{\partial}{\partial z_j} \otimes dz_k \in A^{1,1}$$

$$Dv \in T(T^*M \otimes TM)$$

$$\iota(v) \in T(T^*M \otimes TM)$$

$$\bar{\partial} E = \sum \left(\frac{\partial}{\partial \bar{z}_\ell} \left\{ \frac{\partial v^j}{\partial z_k} + \sum_i P_{ki}^j v^i \right\} \cdot \frac{\partial}{\partial z_j} \otimes dz_k \right) d\bar{z}_\ell$$

$$= \sum \left(\frac{\partial P_{ki}^j}{\partial \bar{z}_\ell} \cdot v^i \cdot \frac{\partial}{\partial z_j} \otimes dz_k \right) d\bar{z}_\ell.$$