holds for every vector $\vec{\lambda}$.

⌈ (5) and (6) are the difference between Def. 1 & Def 1′. ⌋

We pick the values

$$a_p^1 = \lambda_p = \alpha_p^1, \quad 1 \le p \le n$$
$$a_p^j = \sigma \alpha_p^j \qquad j \ge 2, \quad 1 \le p \le n. \tag{7}$$

$\sigma$ being a variable number which will be made to tend to 0 and the $\alpha_p^j$ being chosen in such a way that the square matrix $\| \alpha_p^j \|$ is regular; the same is true for the matrices $\| a_k^j \|$ when $\sigma \neq 0$.

⌈
$$\begin{pmatrix} \alpha_1^1, & \cdots & \alpha_1^n \\ \vdots & & \\ \alpha_n^1, & \cdots & \alpha_n^n \end{pmatrix} = \begin{pmatrix} a_1^1, & \cdots & a_1^n \\ \frac{a_2^1}{\sigma}, & \cdots & \frac{a_2^n}{\sigma} \\ \vdots & & \vdots \\ \frac{a_n^1}{\sigma}, & \cdots & \frac{a_n^n}{\sigma} \end{pmatrix} \Rightarrow \det(\alpha_i^j) = \frac{1}{\sigma^{n-1}} \det$$

$(a_i^j)$ $\Rightarrow$ Regular means that $\det \neq 0$. ⌋

Writing (6) with the values given by (7), we get

$$T(V, \vec{\lambda}) + |\sigma|^2 \sum_{j=2}^{n} T(V, \vec{\alpha^j}) \ge 0.$$

⌈ $$\Delta_{z'} V = \sum_j T(V, \vec{a^j}) = T(V, \vec{a^1}) + T(V, \vec{a^2}) + \cdots + T(V, \vec{a^n})$$

$$\Rightarrow T(V, \vec{a^1}) = T(V, \vec{\lambda}), \quad T(V, \vec{a^2}) = \sum \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} \sigma \alpha_p^2 \bar{\sigma} \overline{\alpha_q^2}$$