Writing

$$\omega = \frac{i}{2}(\varphi_1 \wedge \overline{\varphi}_1 + \varphi_2 \wedge \overline{\varphi}_2),$$

$$\xi \wedge \omega = \frac{i}{2}(\xi_{11} + \xi_{22})\, \varphi_1 \wedge \overline{\varphi}_1 \wedge \varphi_2 \wedge \overline{\varphi}_2,$$

We see that ξ primitive implies $\xi_{11} + \xi_{22} = 0$.

「 Since "ξ primitive" means $\xi \wedge \omega = 0$. 」

For the bilinear relation, $n = 2$. $p+q = n-k = 2$

$$i^{p-q}(-1)^{(n-k)(n-k-1)/2} Q(\xi, \overline{\xi}) = -i^0 Q(\xi, \overline{\xi})$$

$$= -\int_M \xi \wedge \overline{\xi} = -\int_M (+\xi_{11}\overline{\xi}_{22}\, \varphi_1 \wedge \overline{\varphi}_1 \wedge \overline{\varphi}_2 \wedge \varphi_2 + \xi_{22}\overline{\xi}_{11}\, \varphi_2 \wedge \overline{\varphi}_2$$

$$\wedge \overline{\varphi}_1 \wedge \varphi_1 + \overline{\xi}_{21}\xi_{12}\, \varphi_1 \wedge \overline{\varphi}_2 \wedge \varphi_2 \wedge \overline{\varphi}_1 + \overline{\xi}_{12}\xi_{21}\, \varphi_2 \wedge \overline{\varphi}_1 \wedge \varphi_1 \wedge \overline{\varphi}_2)$$

$$= -\int_M (-\xi_{11}\overline{\xi}_{22} - \xi_{22}\overline{\xi}_{11} + |\xi_{12}|^2 + |\xi_{21}|^2)\, \varphi_1 \wedge \overline{\varphi}_1 \wedge \varphi_2 \wedge \overline{\varphi}_2$$

$$= -\int_M (|\xi_{11}|^2 + |\xi_{22}|^2 + 2|\xi_{12}|^2)\, \varphi_1 \wedge \overline{\varphi}_1 \wedge \varphi_2 \wedge \overline{\varphi}_2$$

$$= -\int_M (2|\xi_{11}|^2 + 2|\xi_{12}|^2)\left(\frac{2}{i}\right)^2 \Phi$$

$$= +\frac{4}{1}\int_M 2(|\xi_{11}|^2 + |\xi_{12}|^2)\, \Phi > 0$$

$$\left(\Phi = (-1)\left(\frac{i}{2}\right)^2 \varphi_1 \wedge \varphi_2 \wedge \overline{\varphi}_1 \wedge \overline{\varphi}_2 = \left(\frac{i}{2}\right)^2 \varphi_1 \wedge \overline{\varphi}_1 \wedge \varphi_2 \wedge \overline{\varphi}_2 \right.$$

See p80)