with $K' \geq K_2$.

⌈ $\mathcal{O}_{\tilde{M}}(\tilde{L}^{K} - 2E) = \Omega^{n}_{\tilde{M}}((\tilde{L}^{K} - 2E) \otimes K^{*}_{\tilde{M}}) = \Omega^{n}_{\tilde{M}}(\tilde{L}^{K} - 2E + \tilde{K}^{*}_{M} + (n-1)E^{*}) = \Omega^{n}_{\tilde{M}}(\tilde{L}^{K} - 2E + \tilde{K}^{*}_{M} - (n-1)E)$
$= \Omega^{n}_{\tilde{M}}(\tilde{L}^{K} + \tilde{K}^{*}_{M} - (n+1)E) = \Omega^{n}_{\tilde{M}}(\tilde{L}^{K_1} + \tilde{K}^{*}_{M}) \otimes (\tilde{L}^{K'} - (n+1)E))$. ⌋

It follows by the Kodaira vanishing theorem that

$$H^1(\tilde{M}, \mathcal{O}_{\tilde{M}}(\tilde{L}^{K} - 2E)) = 0 \qquad \text{for } K \geq K_0;$$

hence γ_E is surjective on global sections and assertion 2 is proved for arbitrary fixed x.

⌈ Exactly same as the argument P190 & note P476. ⌋

All that remains now to be proved is that we can find one value of K_0 such that assertions 1 and 2 hold for all choices of x and y and all $K \geq K_0$. But clearly if ι_{L^K} is defined at x and y, and $\iota_{L^K}(x) \neq \iota_{L^K}(y)$, the same will be true for x' near x and y' near y, and likewise if ι_{L^K} is smooth at x it will be smooth at x' near x and seperate points $x' \neq x''$ near x. Since M is compact, then the result follows. Q.E.D.

⌈ If ι_{L^K} is immersive at x, it will be immersive at x' near x. ⌋

Before proceeding to some examples and corollaries, we give a somewhat more intrinsic restatement of the theorem: