┌ $$K : A_c^{n,n}(\mathbb{C}^n \times \mathbb{C}^n) \longrightarrow A^{n,n-1}(\mathbb{C}^n \times \mathbb{C}^n)$$

$$\bar\partial K + (-1)^{0} K \bar\partial = (-1)^{0}\, id$$

$$\Rightarrow \quad \bar\partial K T_\Delta^0 + (-1)^0 K \underbrace{\bar\partial T_\Delta^0}_{=0} = (-1) T_\Delta^0$$

$$\Rightarrow \quad \bar\partial K T_\Delta^0 = (-1)^0 T_\Delta^0. \qquad K T_\Delta^0 = k.$$

smoothing is 0. Wrong! See back. ┘

Now we return to our complex manifold M and map $f : M \longrightarrow M$. Assume that f has isolated, nondegenerate fixed points $\{p_\alpha\}$ and, in terms of local coordinates $z_{\alpha i}$ around p_α, write

$$f(z_\alpha)_i = \sum b_{ij} z_{\alpha j} + [2],$$

i.e.,

$$f(z_\alpha) = B_\alpha z_\alpha + [2],$$

where $B_\alpha = (b_{ij})$; by nondegeneracy, $(I - B_\alpha)$ is nonsingular.

┌

$$\begin{array}{ccc} U & \xrightarrow{\ f\ } & U \\ \downarrow & & \downarrow \\ \mathbb{C}^n & \xrightarrow{\ f\ } & \mathbb{C}^n \end{array}$$

use the same notation

$$(f(z_\alpha))_i = (f(z_{\alpha 1}, \cdots z_{\alpha n}))_i = \sum b_{ij} z_{\alpha j} + [2].$$

$$\Rightarrow \quad J_f(p_\alpha) = \left(\frac{\partial f_i}{\partial z_{\alpha j}} \right) = (b_{ij}) = B$$

$\Rightarrow$ By the def. of nondegenerate fixed points, on P420, $\det(B - I) \neq 0$ ┘