2.3 sing. body $\quad F(x,y) = 0$

$\partial F(x,y) = 0$

$x^3 + y^3 = 3axy$

$x^2 = ay \rightsquigarrow x^3 = axy$

$y^2 = ax \rightsquigarrow y^3 = axy$

$\Rightarrow 2axy = 3axy \Rightarrow xy = 0$

$a \neq 0$

$x = 0 \Rightarrow y = 0$

$y = 0 \Rightarrow x = 0$

Sing. bod je

$[0,0]$

2.5 Věta

" $\Rightarrow$ " $\quad F(\bar{f}_1(t), \bar{f}_2(t)) = 0 \quad / \frac{d}{dt}$

$$\frac{\partial F(\bar{f}_1(t), \bar{f}_2(t))}{\partial x} \cdot \underbrace{\frac{d\bar{f}_1(t)}{dt}}_{= \frac{df_1(t)}{dt}} + \frac{\partial F(\bar{f}_1(t), \bar{f}_2(t))}{\partial y} \cdot \underbrace{\frac{d\bar{f}_2(t)}{dt}}_{\frac{df_2(t)}{dt}} = 0$$

$f_i(t) = \bar{f}_i(t)$

$\rightsquigarrow$ po odstranění prvku dostaneme

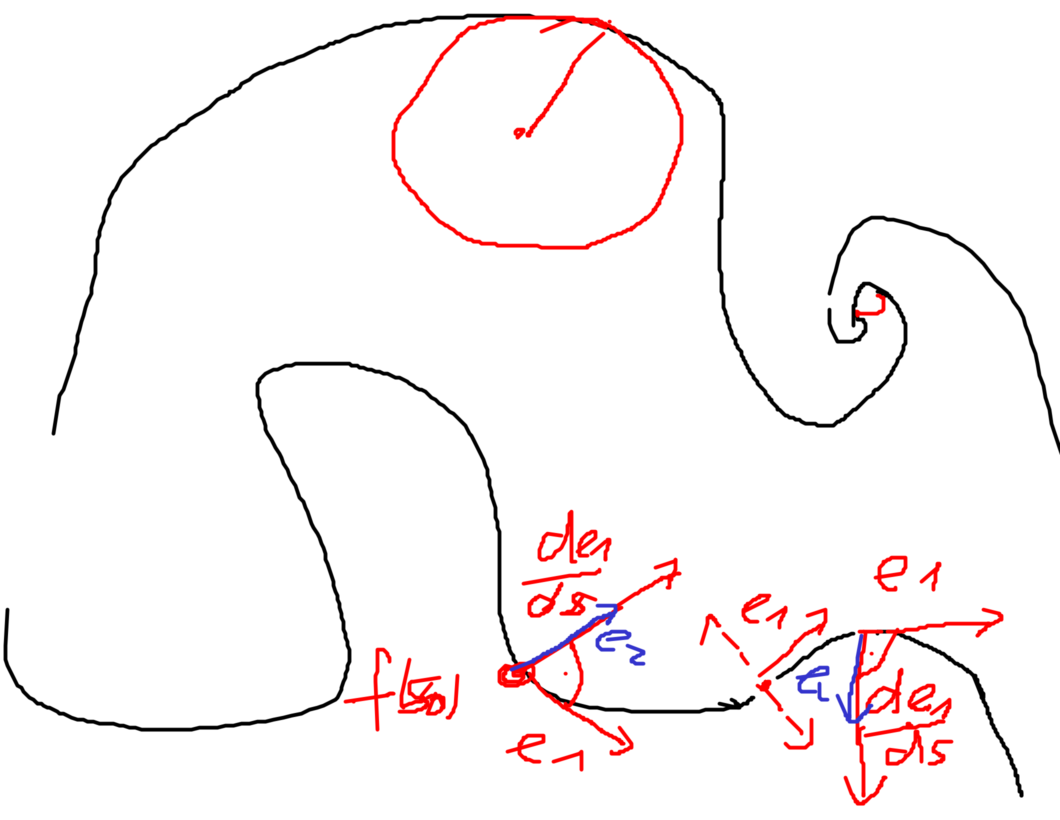
přesně $\dfrac{d\bar{\Phi}(t)}{dt} = \dfrac{d\, F(f_1(t), f_2(t))}{dt}$

$$\overset{\text{"}}{\Leftarrow} \quad g(t) = K(t, 0)$$

$$f_2(t) = K(t, \Phi(t))$$

$$\frac{dg(t)}{dt} = \frac{\partial K(t,0)}{\partial t}$$

$$\frac{df_2(t)}{dt} = \frac{\partial K(t, \Phi(t))}{\partial t} + \frac{\partial K(t, \Phi(t))}{\partial z} \cdot \underbrace{\frac{d\Phi(t)}{dt}}_{=0}$$



$$\langle e_1(s), e_1(s)\rangle = 1 \quad / \frac{d}{ds}$$

$$2\left\langle \frac{de_1}{ds}, e_1 \right\rangle = 0$$

$$\left\langle e_2(s), \frac{de_2(s)}{ds} \right\rangle = 0$$

$$\Rightarrow \frac{de_2(s)}{ds} = c(s)\, e_1(s)$$