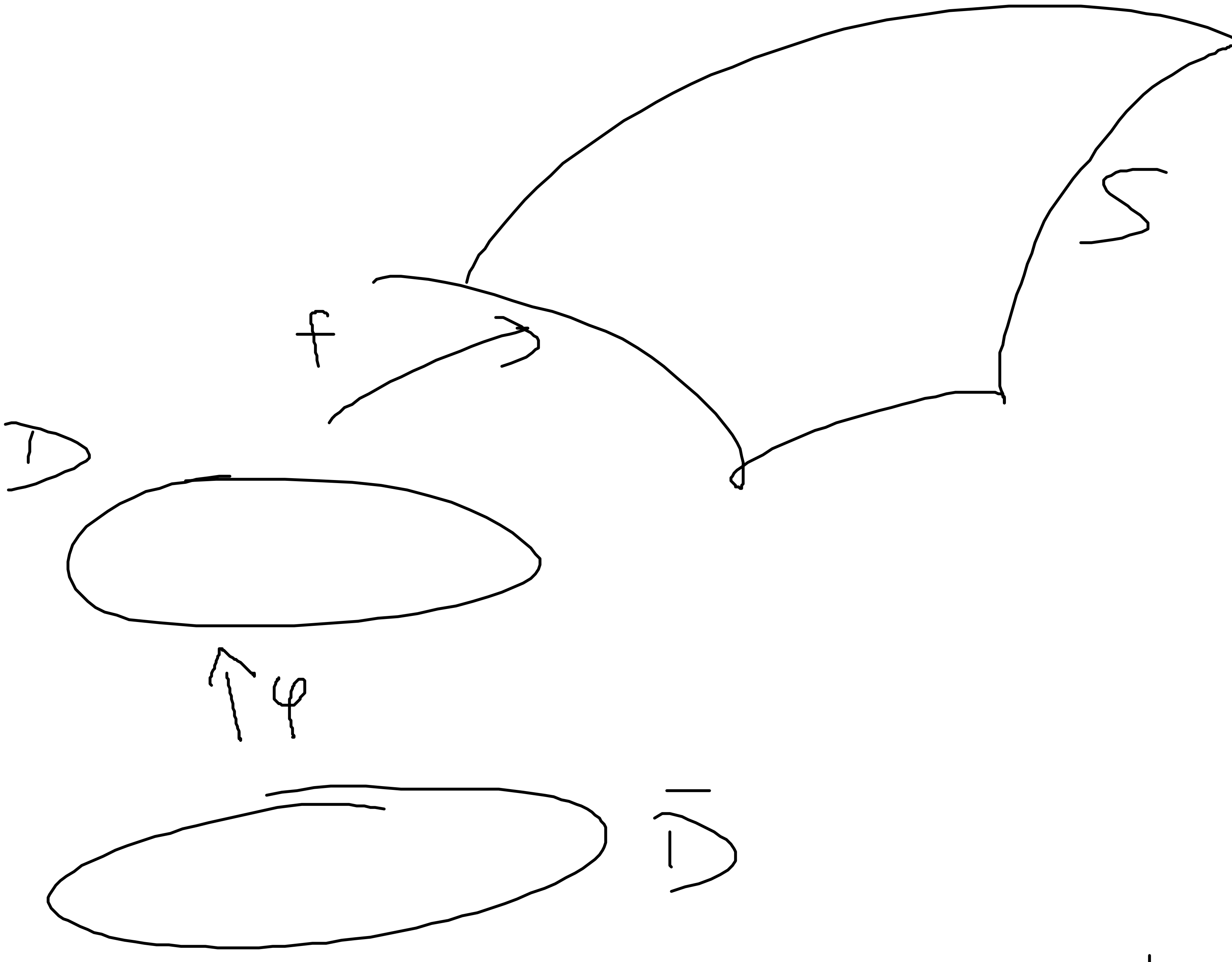
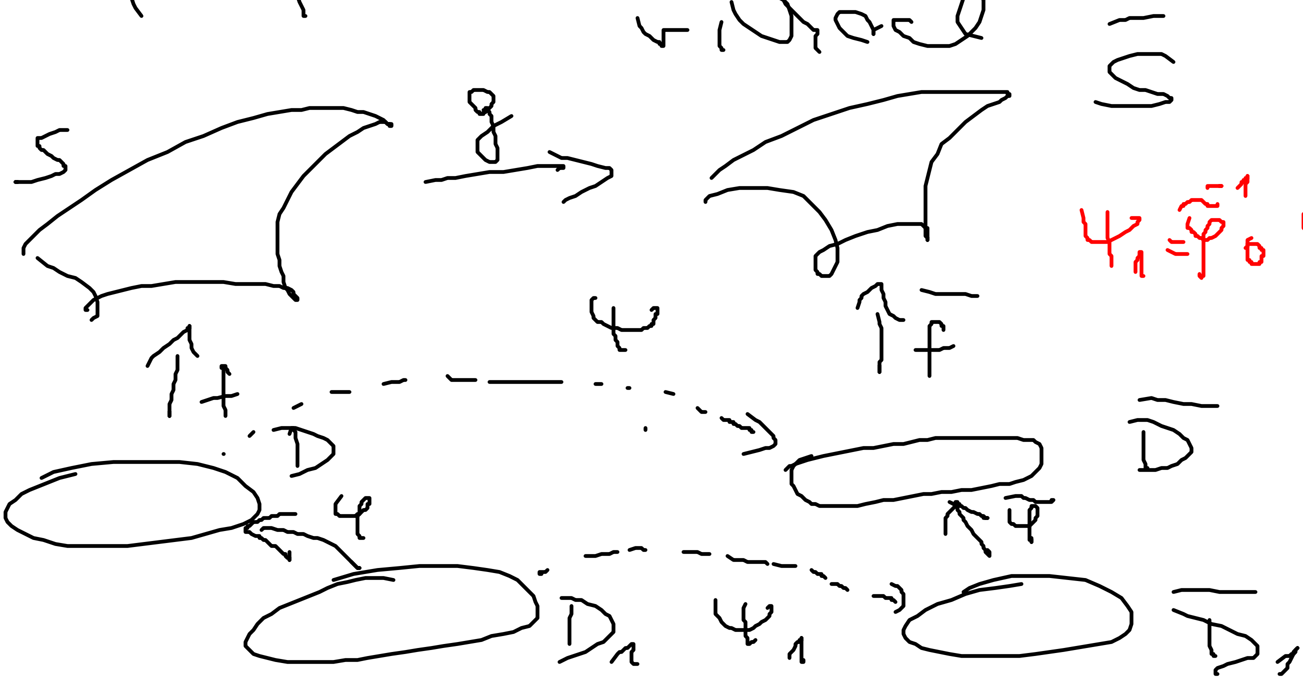
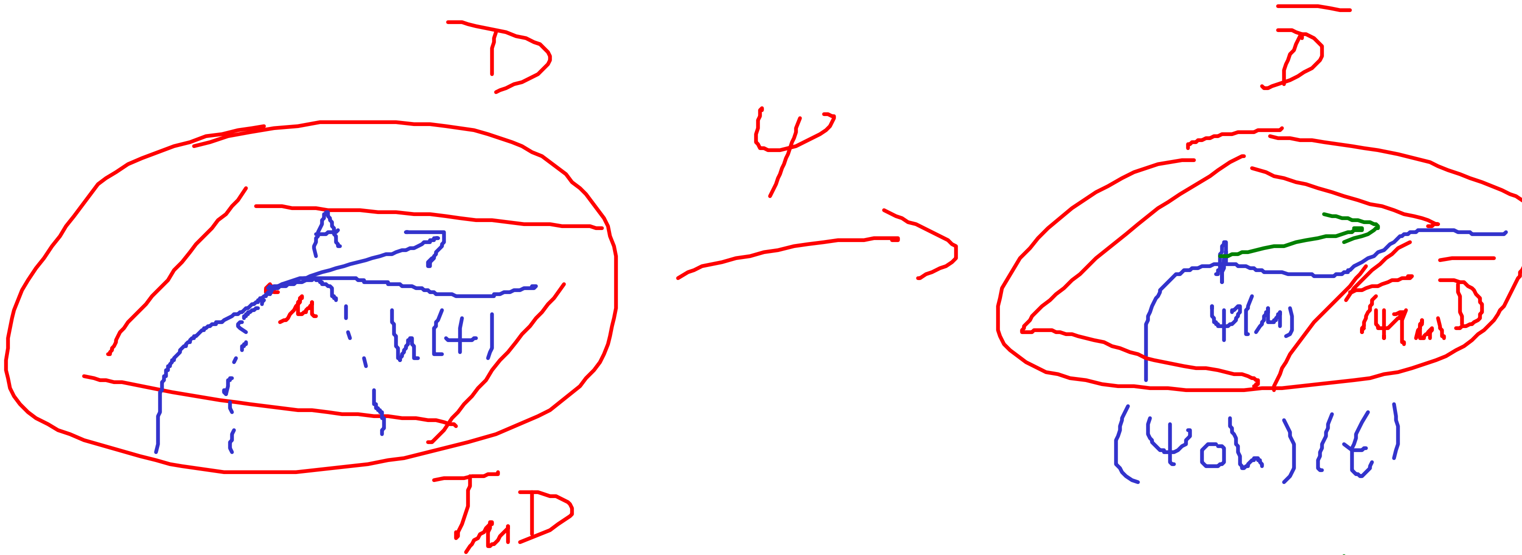


$\bar f = f \circ \varphi$ nová parametrizace



$\psi_1 = \bar\varphi^{-1} \circ \psi \circ \varphi$



$$h(0) = u$$

$$\frac{dh(0)}{dt} = A$$

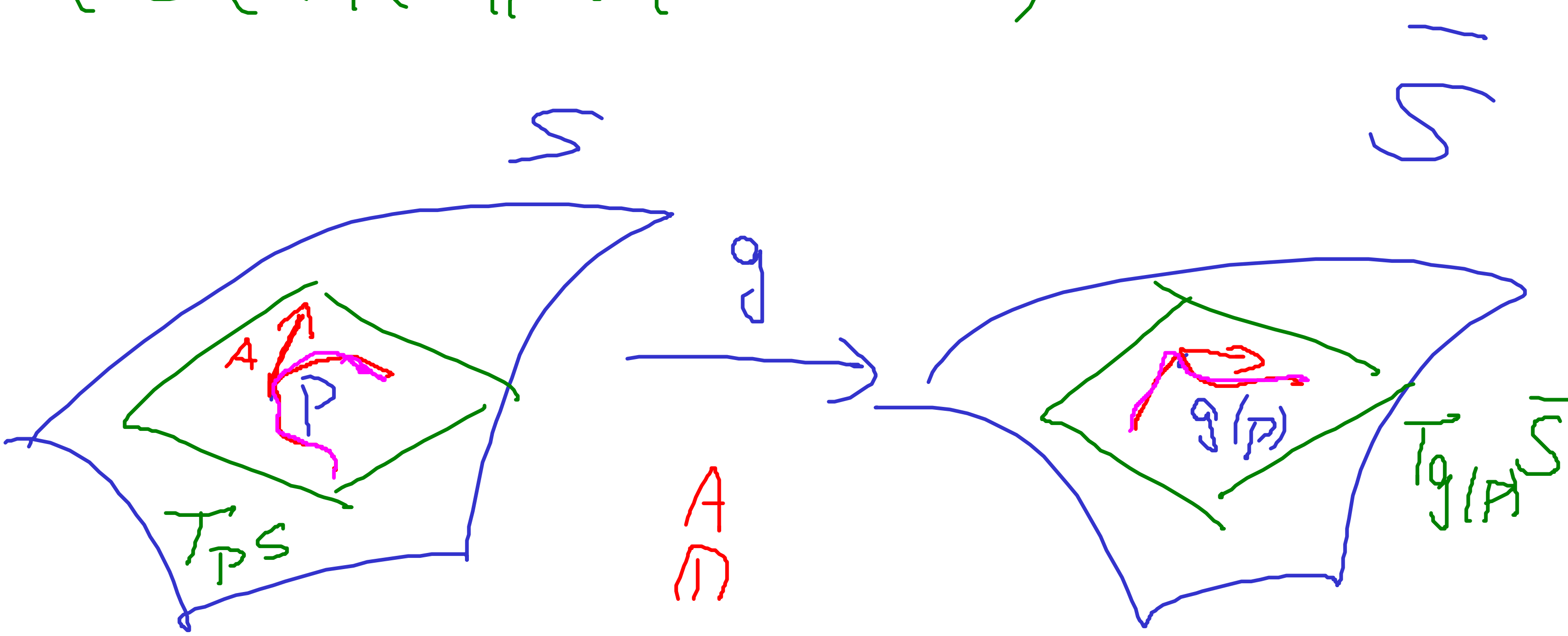
Uvažimo zobr:

$$T_uD \to T_{\psi(u)}\bar{D}$$

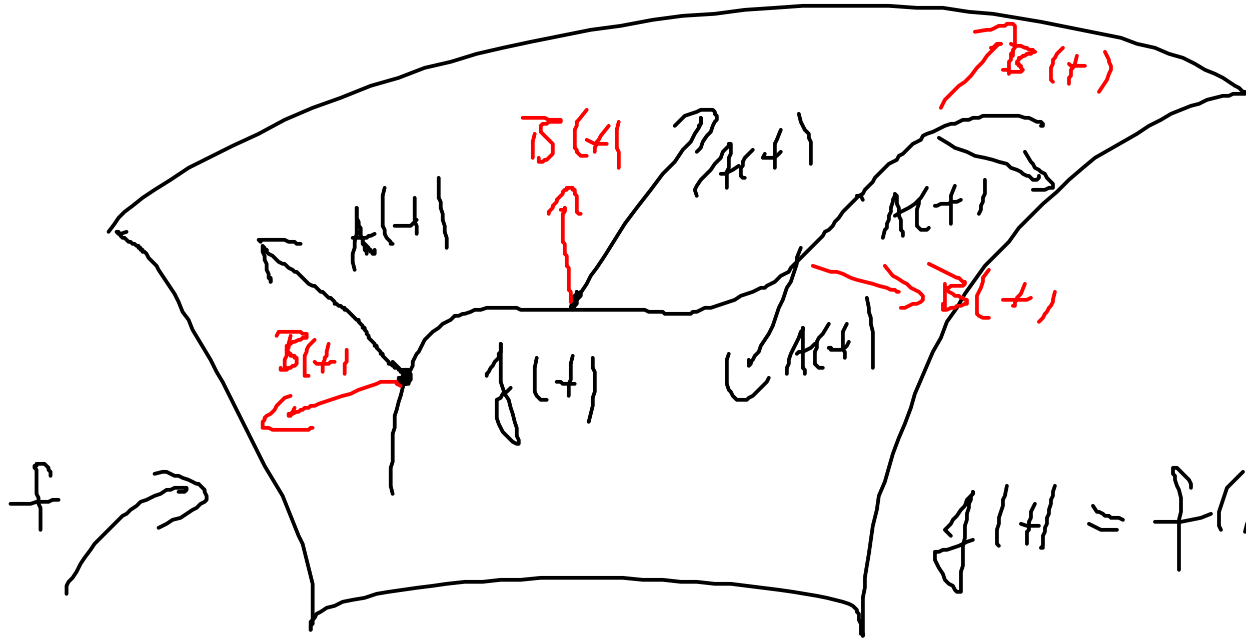
$$A \mapsto \frac{d(\psi\circ h)(0)}{dt}$$

$$\psi : D \to \bar{D}$$

$$\psi = (\psi_1(u_1,u_2), \psi(u_1,u_2))$$



$$T_pg : T_pS \to T_{g(p)}\bar{S}$$



$S \subseteq E_3$

$\gamma(t) = f(u_1(t), u_2(t))$

$(u_1(t), u_2(t))$

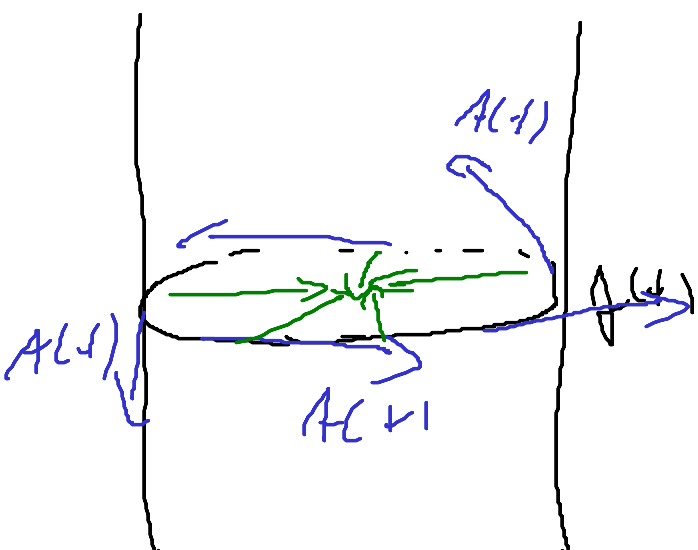
$$\gamma : I \to S$$

$$B(t),\ A(t) \in T_{\gamma(t)} S \subseteq V$$

báze $f_1(u_1(t), u_2(t))$

$f_2(u_1(t), u_2(t))$

zaměření E_3



$\|A(t)\| = 1$

tečné ke kružnici

$$\frac{dA(t)}{dt} \perp A(t)$$

$$\left(A(t), A(t) \right) = 1 \quad / \frac{d}{dt}$$

$$\left(\frac{dA(t)}{dt}, A(t) \right) = 0$$

$\Rightarrow \frac{dA(t)}{dt}$ není tečné pole

k válci ?

$$\frac{\nabla A(t)}{dt} := \mathrm{Proj}_{T_{A(t)}S} \left(\frac{dA(t)}{dt} \right)$$

$$f_{ij} = \Gamma_{ij}^{1} f_1 + \Gamma_{ij}^{2} f_2 + \underbrace{\varphi_{ij}}_{\text{funkce}} \cdot n \quad / (\cdot, n)$$

$$\underbrace{(f_{ij}, n)}_{= h_{ij}} = \varphi_{ij}$$

$$\frac{\nabla A(t)}{dt} = \frac{\nabla U_1(t)}{dt} \cdot f_1(u_1(t), u_2(t)) + \frac{\nabla U_2(t)}{dt} \cdot f_2(u_1(t), u_2(t))$$