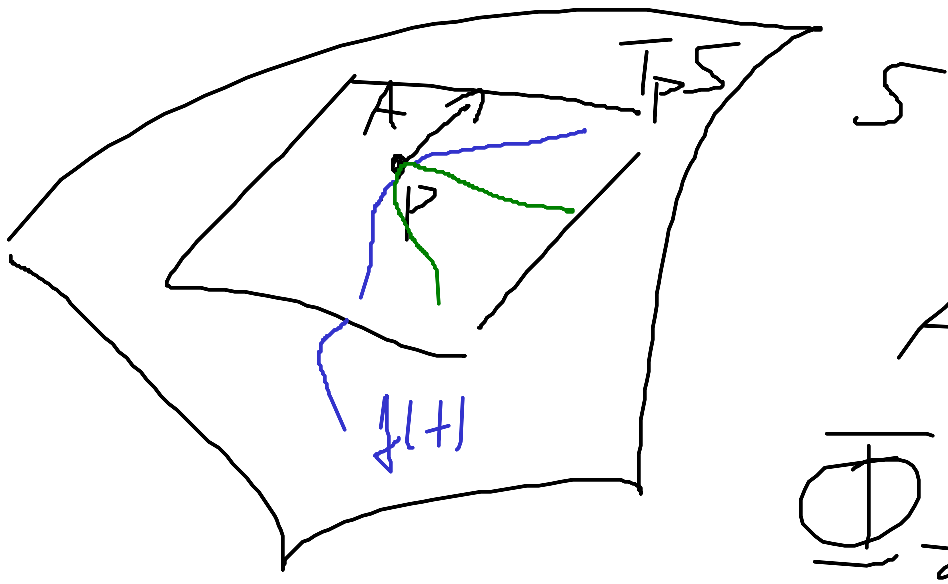
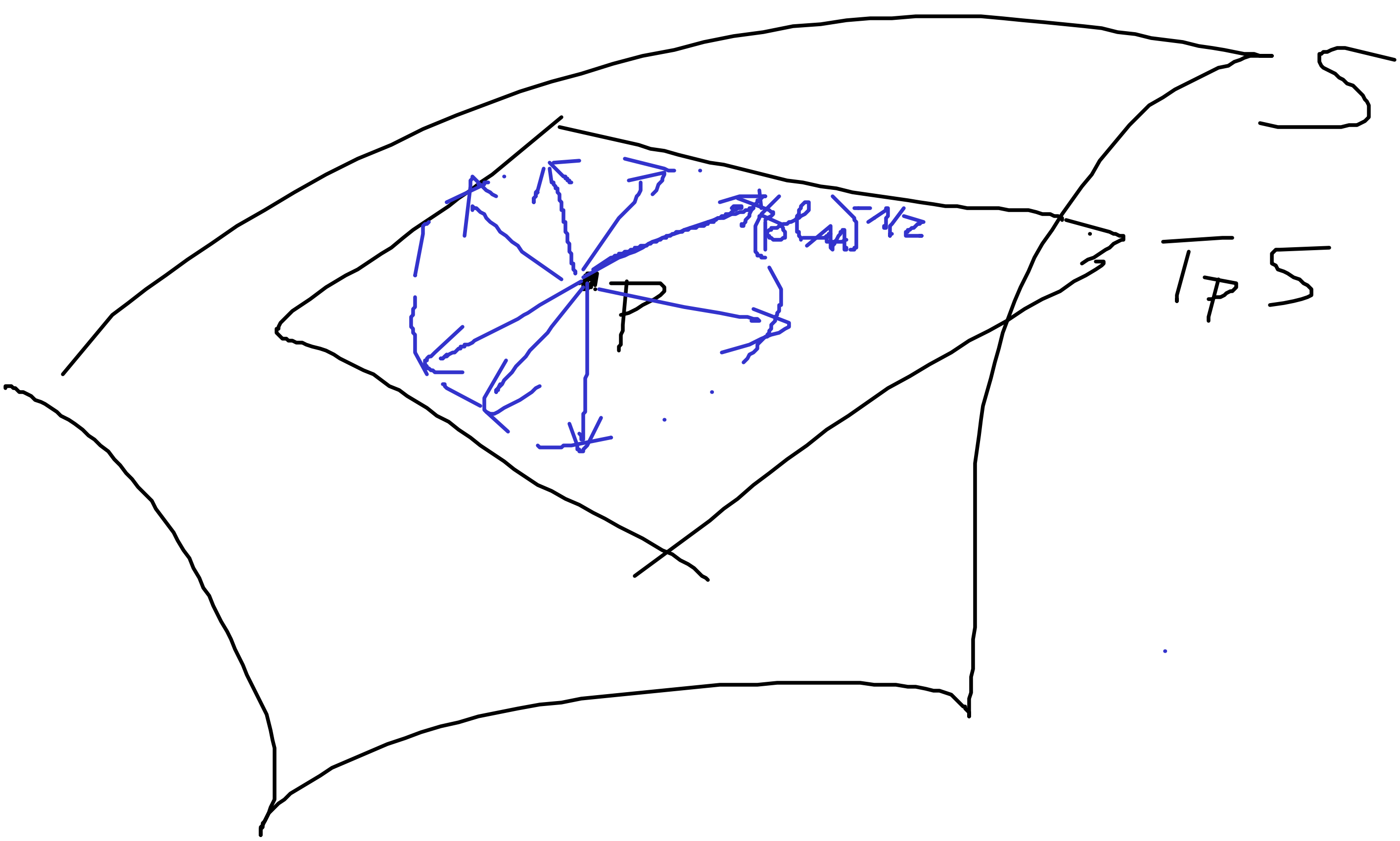



$A \in T_P S$

$\Phi_2(A) = ?$

$\gamma(t)$ beliebig

$$\boxed{\Phi_2(A) := \left(\frac{d^2\gamma}{dt^2}, n\right)}$$



$$\Phi_1(a_1 f_1 + a_2 f_2) = \frac{1}{|\mathcal{H}|}$$

$$\mathcal{H} = \frac{\Phi_2(a_1 f_1 + a_2 f_2)}{\Phi_1(a_1 f_1 + a_2 f_1)}$$

$$|\Phi_2(a_1 f_1 + a_2 f_2)| = 1$$

---

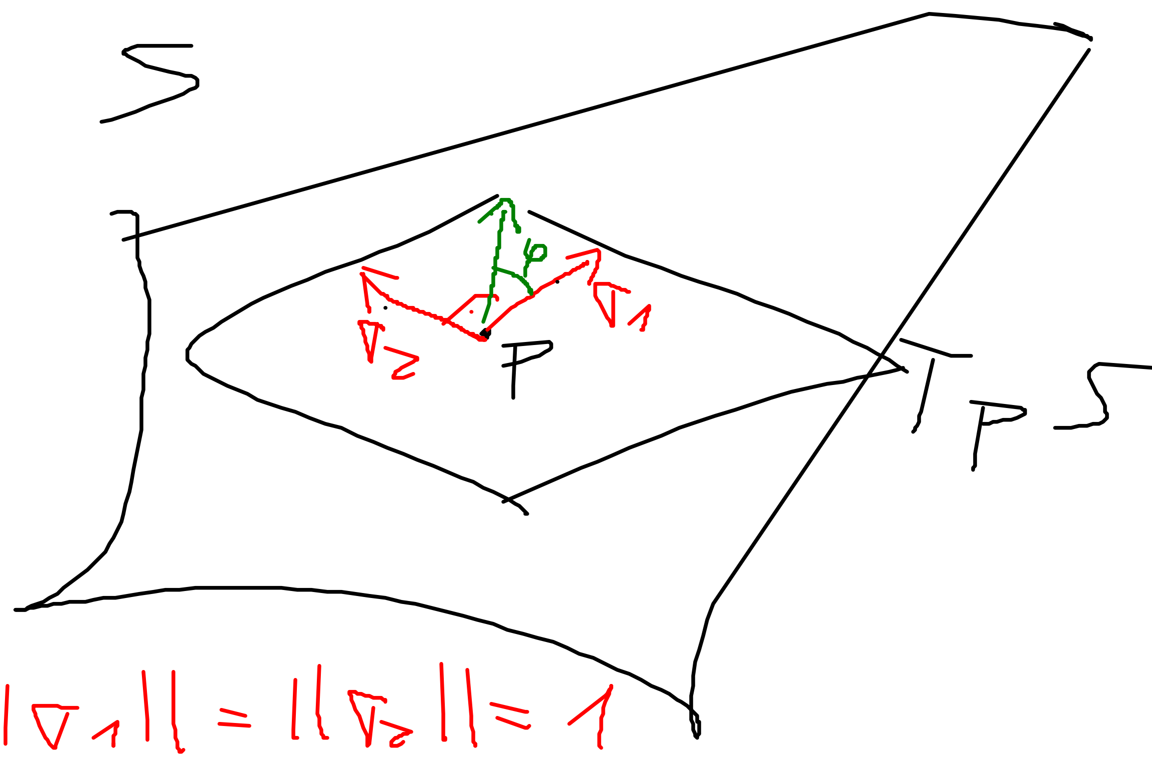
$$g_{11} a_1 b_1 + g_{12}(a_1 b_2 + a_2 b_1) + g_{22} a_2 b_2 = 0$$

---

$$(g_{11} a_1 + g_{12} a_2) b_1 + (g_{12} a_1 + g_{22} a_2) b_2 = 0$$

$$\Downarrow$$

$$(h_{11} a_1 + 2 h_{12} a_2) b_1 + (h_{12} a_2 + h_{22} b_2) b_2 = 0$$




glavni smeri

$\|v_1\| = \|v_2\| = 1$

Zvolimo param. tako, da

$f_1 = v_1 \rightsquigarrow g_{11} = g_{22} = 1,\ g_{12} = 0$

$f_2 = v_2$ $\quad , h_{12} = 0$

$$\kappa(A) = \frac{\Phi_2(A)}{\Phi_1(A)} \qquad \Phi_1(f_1) = g_{11} = 1$$

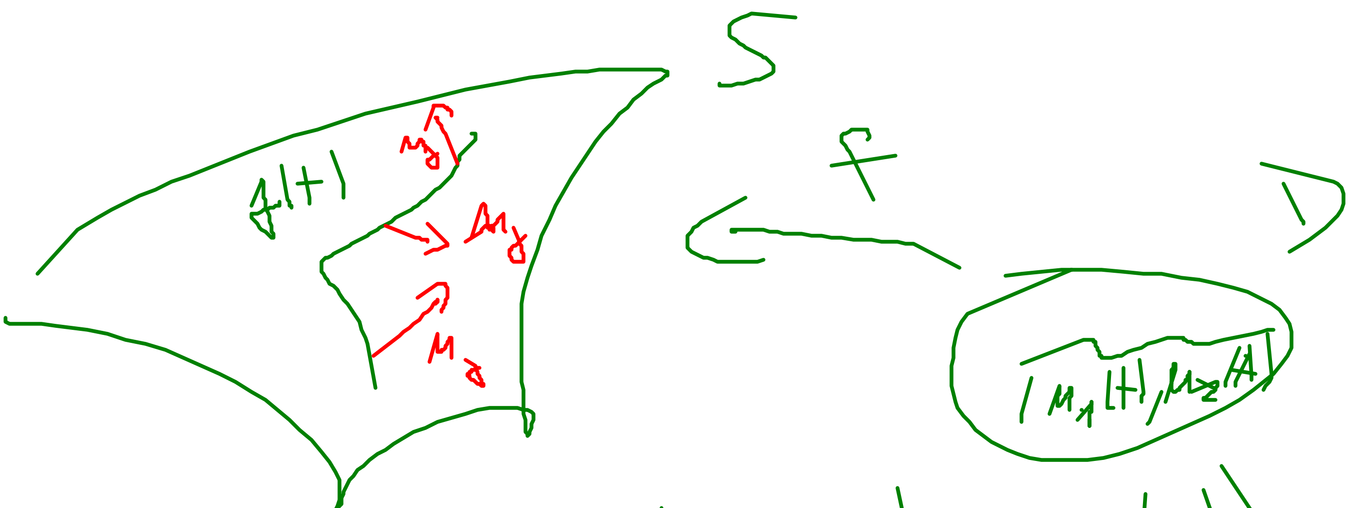
$$\kappa(v_1) = \kappa_1 = \frac{h_{11}}{1} \qquad \|B\| = 1$$

$$B = \cos\varphi \cdot \underbrace{v_1}_{=f_1} + \sin\varphi \cdot \underbrace{v_2}_{=f_2}$$

$$\varkappa(\vec{\beta}) = \frac{\Phi_2(\vec{\beta})}{\Phi_1(\vec{\beta})} = \frac{\qquad}{1}$$

$$\Phi_2(\vec{\beta}) = \boxed{h_{11}\cos^2\varphi + h_{12}(--) + h_{22}\sin^2\varphi}$$

$$\varkappa(\vec{\beta}) = \varkappa_1\cos^2\varphi + \varkappa_2\sin^2\varphi$$




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

$$n_\gamma(t) = n(u_1(t), u_2(t))$$

$$(n, n) = 1 \quad | \, \partial_1$$

$$(n_1, n) + (n, n_1) = 0 \Rightarrow n \perp n_1$$

$$(\xi_i, M_j) = -h_{ij}$$