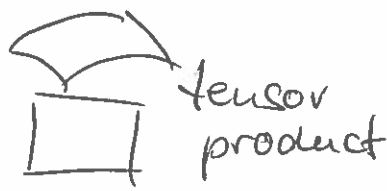
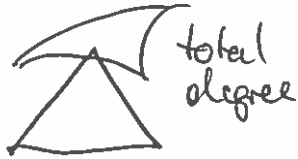
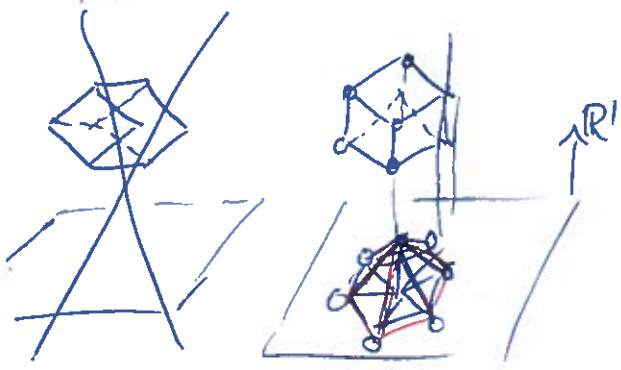
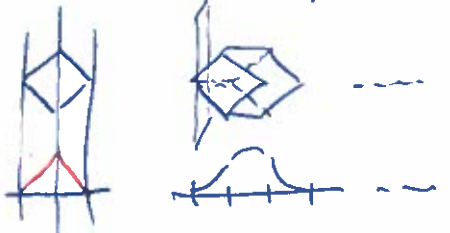


Hello World



? B-splines

box-splines

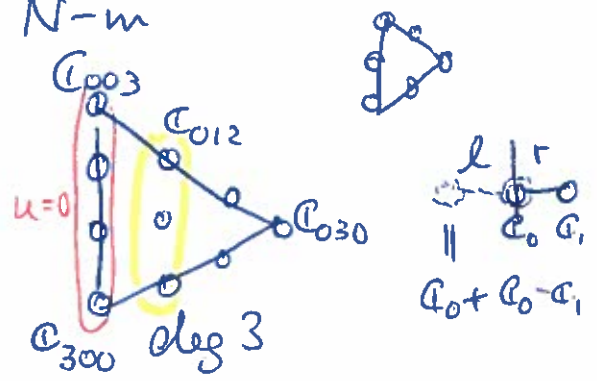


"tent"

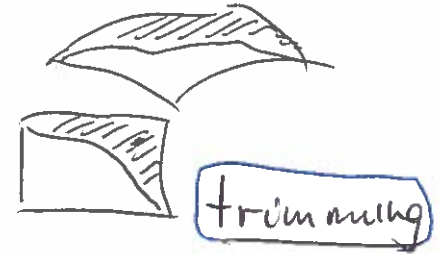
$\mathbb{R}^N \rightarrow \mathbb{R}^m$
 box domain $N \geq m$

degree of box spline

$= N - m$



restrict domain (square)



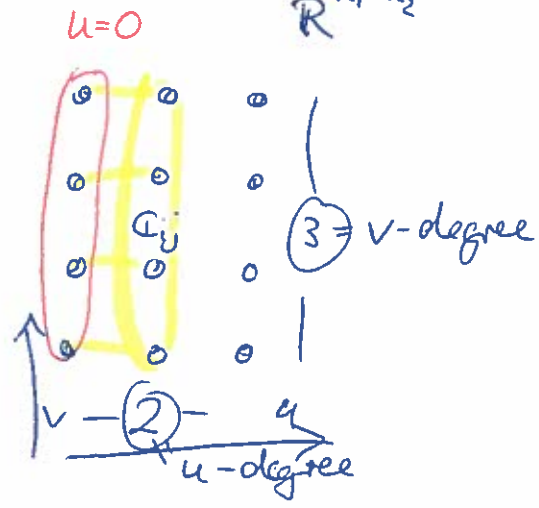
Intersection

$x^1(u_1, v_1) = x^2(u_2, v_2)$
 $y^1(u_1, v_1) = y^2(u_2, v_2)$
 $z^1(u_1, v_1) = z^2(u_2, v_2)$

$$\sum_{j=0}^{n_2} \left(\sum_{i=0}^{n_1} c_{ij} b_i^{n_1}(u) \right) b_j^{n_2}(v)$$

 uni-variate

for each coord $x = (b_0^{n_1}, \dots, b_{n_1}^{n_1}) \begin{pmatrix} c_{ij}^x \end{pmatrix} \begin{pmatrix} b_0^{n_2} \\ \vdots \\ b_{n_2}^{n_2} \end{pmatrix}$
 $\mathbb{R}^{n_1 \times n_2}$



$$\sum_{i+j+k=n} c_{ijk} b_{ijk}(u,v) = \frac{n!}{(i!j!k!)} (-u-v)^i u^j v^k$$