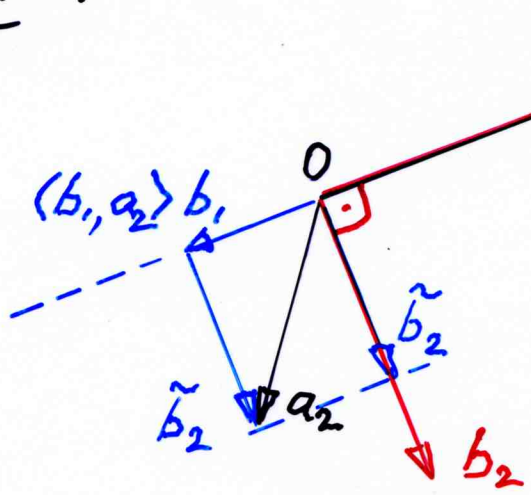


Gram-Schmidt

im \mathbb{R}^2 :



$$b_1 = \frac{a_1}{\|a_1\|}$$

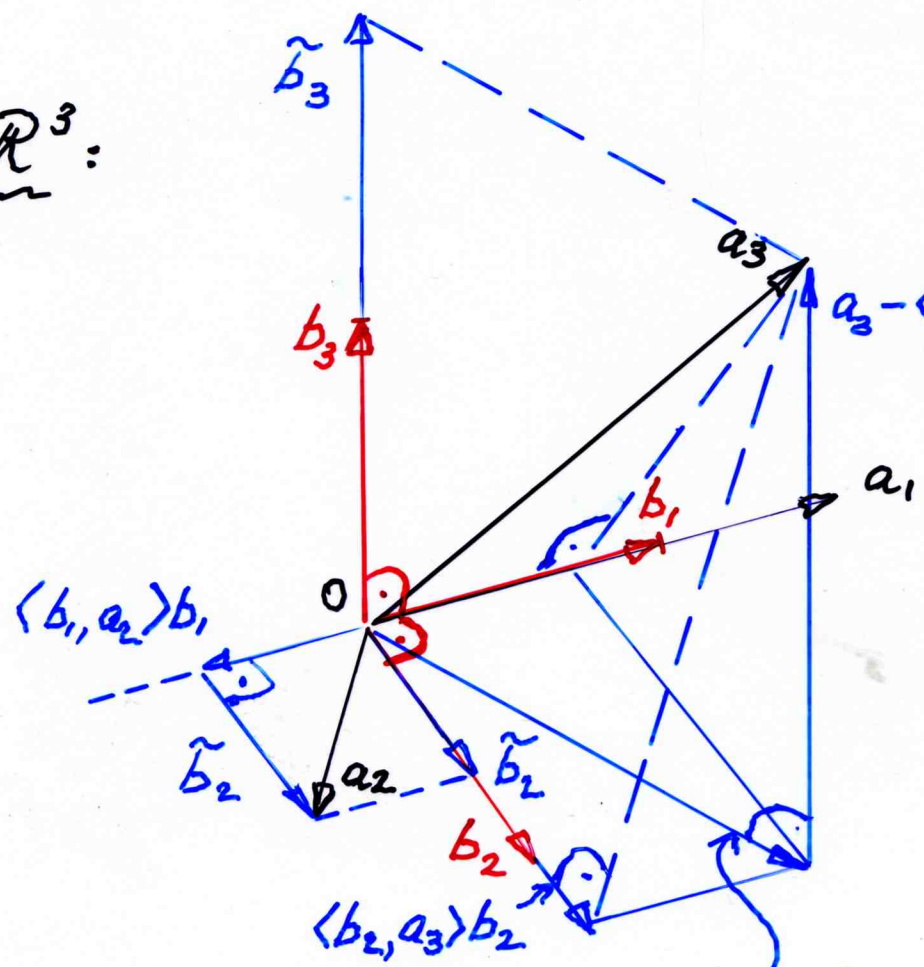
$$\tilde{a}_2 = a_2 - \langle b_1, a_2 \rangle b_1$$

$$\tilde{a}_2 = (I - b_1 b_1^T) a_2$$

Projektor

$$b_2 = \frac{\tilde{a}_2}{\|\tilde{a}_2\|}$$

im \mathbb{R}^3 :



$$a_3 - \langle b_1, a_3 \rangle b_1 - \langle b_2, a_3 \rangle b_2 =: \tilde{a}_3$$

$$\langle b_1, a_3 \rangle b_1 + \langle b_2, a_3 \rangle b_2$$