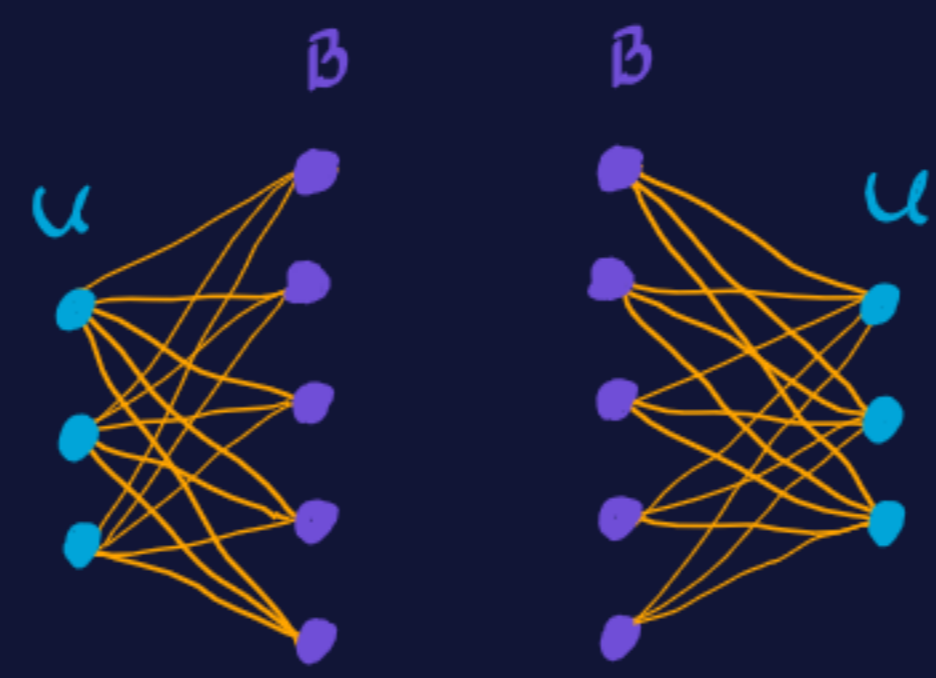


Charakterizace OG projekce v B-representaci

• $B \equiv (b_1, \dots, b_k)$ ON báze

$$\hookrightarrow A_u^B := \left([u_1]_B \dots [u_n]_B \right)$$

$$\hookrightarrow A_B^u := (A_u^B)^\dagger$$



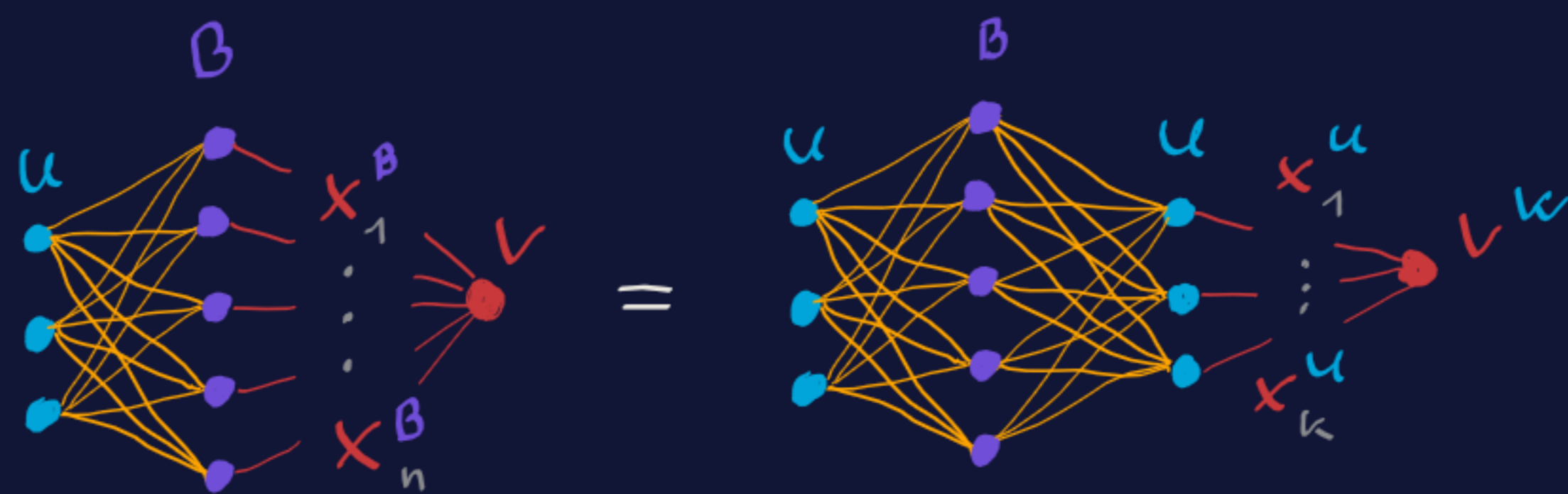
Pro C ON bázi $A_c^B = [id]_C^B$
celého prvostvu: $A_B^c = [id]_B^c$



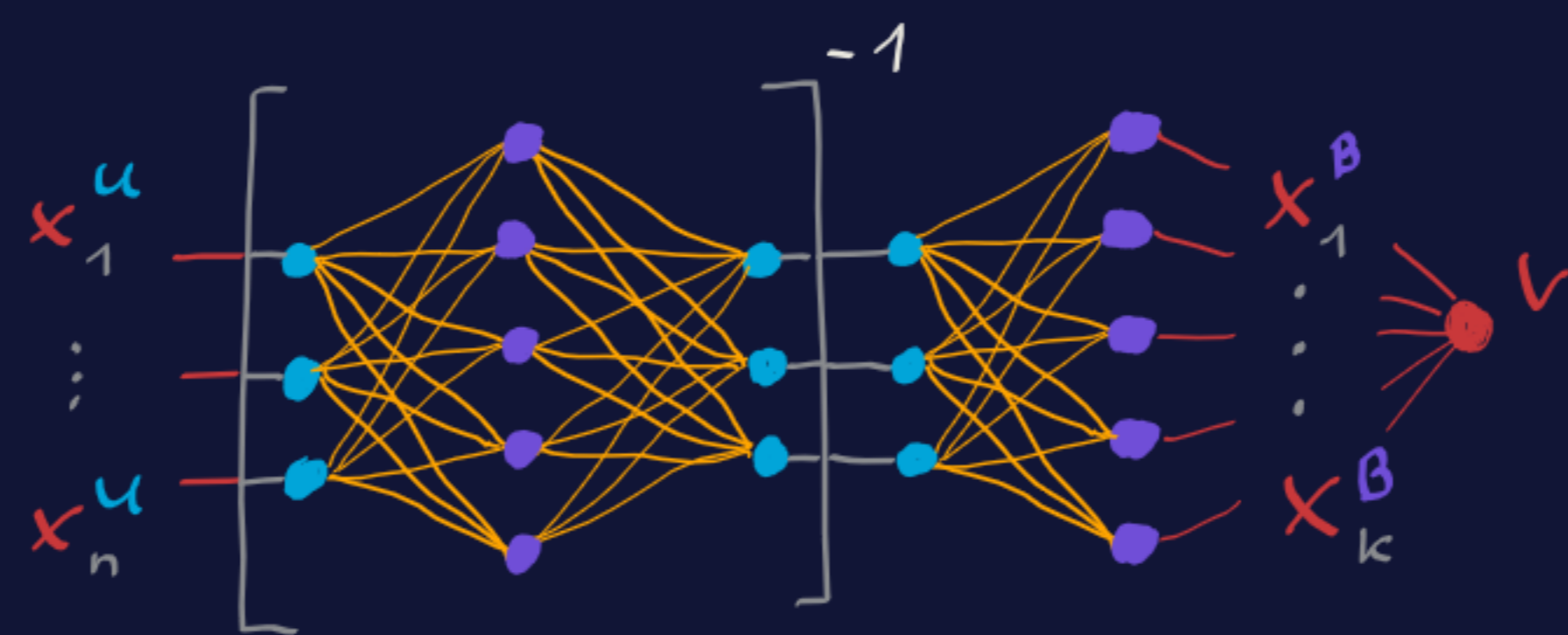
• Můžeme přeformulovat:

$$\langle u_i, v \rangle = \sum_{j=1}^n x_j^u \langle u_i, v_j \rangle$$

$$A_B^u [v]_B = \underbrace{A_B^u A_u^B}_{\substack{\text{zpátky} \\ B \leftarrow u \\ \text{tam}}}} x^u$$

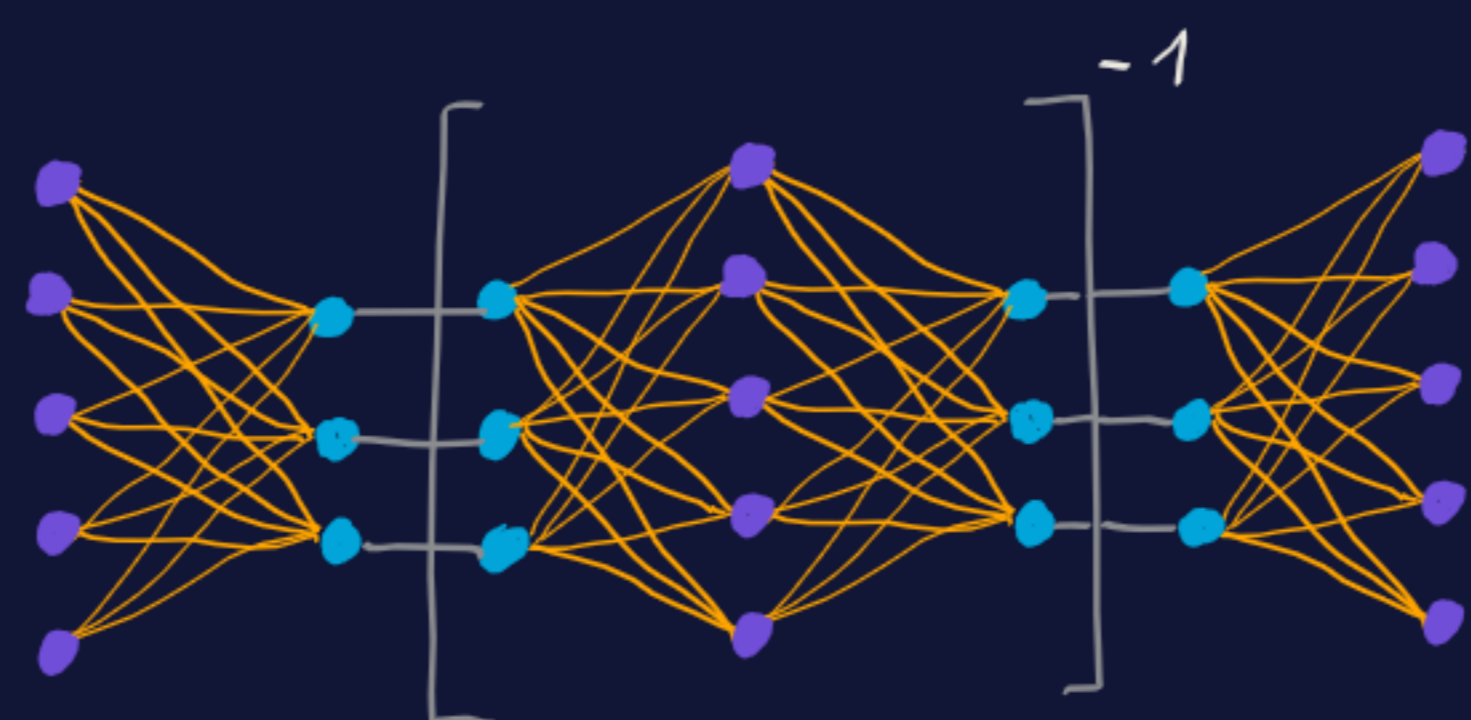


• Pro u LNZ: $A_B^u A_u^B$ regulární $\Rightarrow x^u = (A_B^u A_u^B)^{-1} A_B^u x^B$



• Tím pádem OG projektor:

$$[P_{\langle u \rangle}]_B^B = A_u^B (A_B^u A_u^B)^{-1} A_B^u$$



$$[P_w]_B^B x^B = [P_w(v)]_B^B = [v^w]_B^B = \sum_{j=1}^k x_j^u [v_j]_B^B = A_u^B x^u = A_u^B (A_B^u A_u^B)^{-1} A_B^u x^B$$