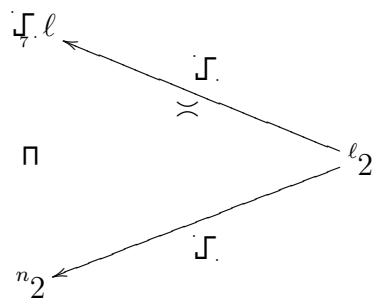


$$2 = 2_q$$

$$\underline{\underline{q}}$$

$$\ell_2 \ni \begin{bmatrix} 1 \\ \vdots \\ \ell \end{bmatrix} = \text{ } \ell \text{ Nachrichten}$$

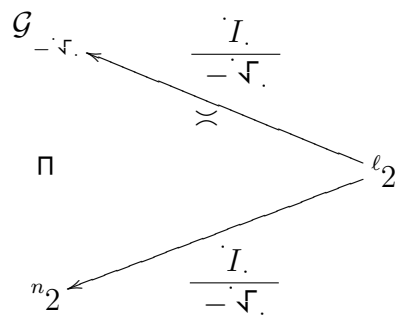


$$J = [J_1 \dots J_\ell]$$

rg  $J = \ell \Rightarrow \ell$  freie Spalten

$$\ell_2 \ni \begin{bmatrix} 1 \\ \vdots \\ n \end{bmatrix} = \text{ } \ell \in n \supset \text{ } \ell \text{ lin code}$$

$\ell_2 = 2 < J_1 \dots J_\ell >$  Spaltenraum



$$n_2 \supset \frac{I}{-J} \ell_2 = \mathcal{G}_{-J}$$