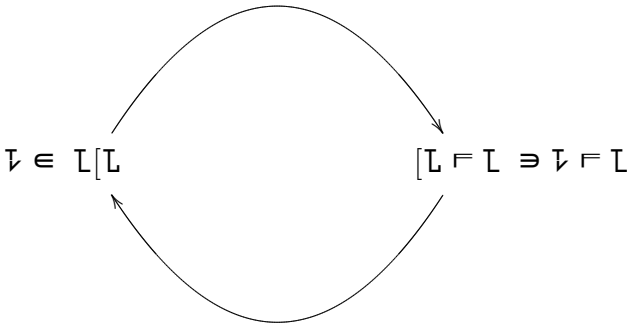
$$|\Gamma = \{\Gamma \sqsubset \Gamma\}$$

$$|\, q^n = \{\mathtt{L} \sqsubset q^n\} \text{ quantum cube}$$

$$\text{inclusion } \mathtt{L} \sqsubset \mathtt{E} \sqsubset q^n \Longrightarrow \dim_q \mathtt{L} \leqslant \dim_q \mathtt{E}$$

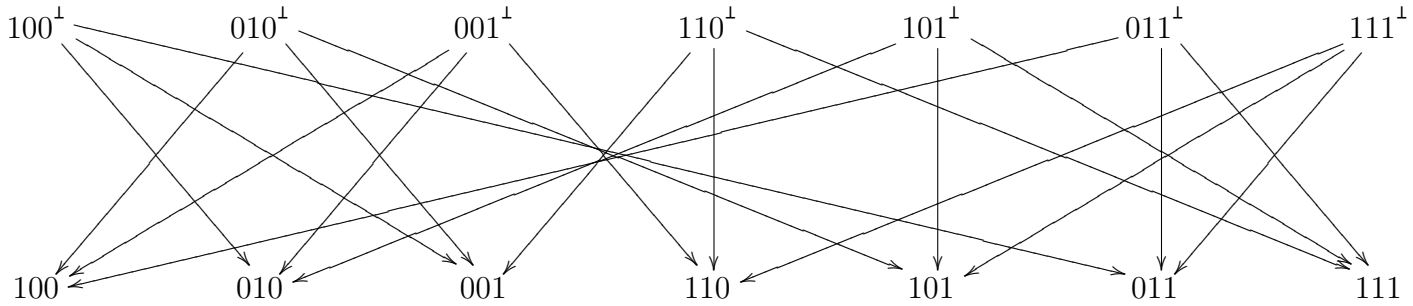
$$\text{lattice } \begin{cases} \mathtt{L} \sqcap \mathtt{E} & = \mathtt{L} \cap \mathtt{E} \\ \mathtt{L} \sqcup \mathtt{E} & =< \mathtt{L} \cup \mathtt{E} > \end{cases}$$

$$\text{o-interval } \mathtt{L}[\mathtt{L} = \frac{\mathtt{Y} \sqsubset q^n}{\mathtt{L} \sqsubset \mathtt{Y} \sqsubset \mathtt{L}}$$



$q = 2: \quad n = 3$

$2^3 = \{$ 000: a=100: b=010: c=001: d=110: e=101: f=011: g=111 $\}$



$$10\,0^{\perp} \llcorner 000 = \{010{:}001{:}011\}$$

$$01\,0^{\perp} \llcorner 000 = \{100{:}001{:}101\}$$

$$00\,1^{\perp} \llcorner 000 = \{100{:}010{:}110\}$$

$$11\,0^{\perp} \llcorner 000 = \{001{:}110{:}111\}$$

$$10\,1^{\perp} \llcorner 000 = \{010{:}101{:}111\}$$

$$01\,1^{\perp} \llcorner 000 = \{100{:}011{:}111\}$$

$$11\,1^{\perp} \llcorner 000 = \{110{:}101{:}011\}$$

$$\text{Galois } G_{n:q} = \sharp| \, q^n = \sum_{m}^{0|n} \underset{m}{\downarrow} \, q^n = \sum_{m}^{0|n} \begin{bmatrix} n \\ m \end{bmatrix}_q$$