

$$\mathbb{K} = \mathbb{R}[Z_2^{\log_2 a}]$$

$$\mathbb{R} = \mathbb{R}[Z_2^0]$$

$$\mathbb{C} = \mathbb{R}[Z_2^1]$$

$$\mathbb{H} = \mathbb{R}[Z_2^2]$$

$$\mathbb{O} = \mathbb{R}[Z_2^3]$$

$$_{\mathbb{P}}Z_2^3 \text{ Fano plane}$$

$$\mathbb{O} = \mathbb{R} < \, _{\mathbb{P}}Z_2^3 \, >$$

$$\mathbb{G} = \mathbb{R}[Z_2^4] \text{ sedenions}$$

$$G_2 = \frac{g \in \mathbb{G} \text{ zero div}}{\overline{g} = 1}$$