

\mathbb{Q} $\stackrel{\text{fin}}{\sqsubseteq}$ \mathbb{Q} number field

\mathbb{Z} $\stackrel{\text{fin}}{\sqsubseteq}$ \mathbb{Z} number ring

$$\mathbb{Q} \stackrel{\text{fin}}{\sqsubseteq} \mathbb{Q} \xrightarrow{p} \mathbb{R}^{d_1} \times \mathbb{C}^{d_2}$$

U **U** **U**

$$\mathbb{Z} \stackrel{\text{fin}}{\sqsubseteq} \mathbb{Z} \xrightarrow{\sim} \mathbb{Z}^{d_1 + d_2}$$

$${}^u\mathbb{Z} = \sum_{n \in \mathbb{Z}} \exp\left(-\pi \sum_p d_p \overline{n}_p^2 u_p\right)$$