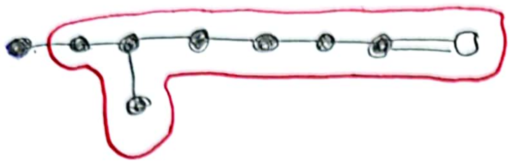
$(9,9,1)_1$ $\qquad \tilde{B}_7(2)$



$\qquad\qquad U(2) \qquad\qquad U$

$(9,9,1)_1 = I_{1,1}(2) + \underbrace{\cancel{\quad}}_{(7,7,1)_0}$

$\bullet \Longrightarrow \bullet$

$(9,9,1)_1 \quad (8,8,1)_0$

The cusp diag of $T = (11,11,1)_2$

$\overset{\delta=1}{\bullet \longrightarrow \bullet}$ or $\overset{\delta=0}{\circ \longrightarrow \circ}$

0-cusps : odd $\quad \Lambda = U \oplus \Lambda' \quad (r,a,\delta) = U \oplus (r-1, a-1, \delta)$

$\bullet \Longrightarrow \bullet$ $\quad$ even ord $\quad (r,a,\delta) = U(2) \oplus (r-1, a-1, \delta)$

$\bullet \Longrightarrow \circ$ $\quad$ even char $\quad (r,a,1) = I_{1,1}(2) \oplus (r-1, a-1, 0)$

The lattice $(8,8,1) = I_{0,8}(2) = \boxed{\begin{matrix} -2 & & \\ & \ddots & \\ & & -2 \end{matrix}}$

Compare to the unpol'd Enr.

$v^2 = -2$

$v \in \boxed{T_{En}} = (12,10,0)_2 = E_{10}(2) = (U + E_8)(2)$ $\qquad \boxed{\frac{1}{2}\sum e_i}$

$v^\perp = T_{Co} = (11,11,1)_2 \qquad \langle v \rangle = (1,1,1)_0$ $\qquad I_{2,10}(2)$

$\Lambda = v \oplus v^\perp = (1,1,1)_0 \oplus (11,11,1)_2 = (12,12,1)_2$ $\qquad \frac{2(2-1)}{4} = -4$

$\cap\, 2:1 \qquad \langle -2 \rangle \oplus I_{2,9}(2) \qquad \cap\, 2:1$

$\boxed{T_{En}} \quad \boxed{\tfrac{1}{2}\Lambda/\Lambda} \qquad \boxed{\begin{matrix} 2 & & & \\ & 2 & & \\ & & -2 & \\ & & & \ddots \ -2 \end{matrix}}\ \boxed{-2} \qquad (12,10,0)_2$

$A \quad \cancel{\sum e_i}$

$(9,9,1)_1 \qquad (8,8,1)_0$

$\bullet \Longrightarrow \bullet$

$(10,10,1)_1 \qquad (9,9,1)_0$

$\cap\, 2:1 \qquad \cap\, 2:1$

$\boxed{(10,8,0)_1 \qquad (8,8,0)_0}$

Paper Allcock - Period lattice for Enriques sfcs
↳ Lemma 1

Namikawa Enriques: Unique -2 vector in

Serre Arithmetic

$v^2 = 0$ (new -2 curve from sing)

See Conway's glue constructions