

# $U_3(5) \pmod{2}$

|         | blocks        | defect | matrix                           |
|---------|---------------|--------|----------------------------------|
| $G :$   | 1             | 4      | $8 \times 3$                     |
|         | 2             | 2      | $4 \times 3$                     |
|         | 3             | 0      | $144_1 = \chi_{13}, \varphi_7$   |
|         | $4 = \bar{3}$ | 0      | $144_2 = \chi_{14}, \varphi_8$   |
| $3.G :$ | 5             | 4      | $8 \times 2$                     |
|         | $6 = 5^*$     | 0      | $48_1 = \chi_{17}, \varphi_{10}$ |
|         | 7             |        |                                  |
|         | $8 = 7^*$     |        |                                  |

|  | blocks               | defect | matrix                            |
|--|----------------------|--------|-----------------------------------|
|  | 9                    | 0      | $48_3 = \chi_{18}, \varphi_{11}$  |
|  | $10 = 9^*$           | 0      | $48_5 = \chi_{19}, \varphi_{12}$  |
|  | 11                   |        |                                   |
|  | $12 = 11^*$          | 0      | $144_3 = \chi_{26}, \varphi_{14}$ |
|  | 13                   |        |                                   |
|  | $14 = 13^*$          | 0      | $144_5 = \chi_{27}, \varphi_{15}$ |
|  | $15 = \overline{14}$ |        |                                   |
|  | $16 = 15^*$          |        |                                   |

| Block 1:            | $\varphi_1$ | $\varphi_2$ | $\varphi_6$ |
|---------------------|-------------|-------------|-------------|
| $1_1 = \chi_1$      | 1           | .           | .           |
| $20_1 = \chi_2$     | .           | 1           | .           |
| $21_1 = \chi_3$     | 1           | 1           | .           |
| $105_1 = \chi_8$    | 1           | .           | 1           |
| $125_1 = \chi_9$    | 1           | 1           | 1           |
| $126_1 = \chi_{10}$ | 2           | 1           | 1           |
| $126_2 = \chi_{11}$ | 2           | 1           | 1           |
| $126_3 = \chi_{12}$ | 2           | 1           | 1           |

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_2 &= 20_1 \\ \varphi_6 &= 104_1 \end{aligned}$$

| Block 2:        | $\varphi_3$ | $\varphi_4$ | $\varphi_5$ |
|-----------------|-------------|-------------|-------------|
| $28_1 = \chi_4$ | 1           | .           | .           |
| $28_2 = \chi_5$ | .           | 1           | .           |
| $28_3 = \chi_6$ | .           | .           | 1           |
| $84_1 = \chi_7$ | 1           | 1           | 1           |

$$\begin{aligned} \varphi_3 &= 28_1 \\ \varphi_4 &= 28_2 \\ \varphi_5 &= 28_3 \end{aligned}$$

| Blocks 5, 6:        | $\varphi_9$ | $\varphi_{13}$ |
|---------------------|-------------|----------------|
| $21_2 = \chi_{15}$  | 1           | .              |
| $21_4 = \chi_{16}$  | 1           | .              |
| $84_2 = \chi_{20}$  | .           | 1              |
| $105_2 = \chi_{21}$ | 1           | 1              |
| $105_4 = \chi_{22}$ | 1           | 1              |
| $126_4 = \chi_{23}$ | 2           | 1              |
| $126_6 = \chi_{24}$ | 2           | 1              |
| $126_8 = \chi_{25}$ | 2           | 1              |

$$\begin{aligned} \varphi_9 &= 21_1 \\ \varphi_{13} &= 84_1 \end{aligned}$$