

# $L_3(4).6 \pmod{5}$

|         | blocks          | defect | matrix                                 |
|---------|-----------------|--------|----------------------------------------|
| $G :$   | 1               | 1      | $5 \times 4$                           |
|         | 2               | 1      | $5 \times 4$                           |
|         | $3 = \bar{2}$   | 1      | $5 \times 4$                           |
|         | 4               | 0      | $20_1 = \chi_{2,0}, \varphi_{2,0}$     |
|         | 5               | 0      | $20_2 = \chi_{2,1}, \varphi_{2,1}$     |
|         | 6               | 0      | $20_3 = \chi_{2,2}, \varphi_{2,2}$     |
|         | 7               | 0      | $20_4 = \chi_{2,3}, \varphi_{2,3}$     |
|         | $8 = \bar{6}$   | 0      | $20_5 = \chi_{2,4}, \varphi_{2,4}$     |
|         | $9 = \bar{5}$   | 0      | $20_6 = \chi_{2,5}, \varphi_{2,5}$     |
|         | 10              | 0      | $105_1 = \chi_{3,0+}, \varphi_{3,0+}$  |
|         | 11              | 0      | $105_2 = \chi_{3,1+}, \varphi_{3,1+}$  |
|         | 12              | 0      | $90_1 = \chi_{6,0+}, \varphi_{6,0+}$   |
|         | 13              | 0      | $90_2 = \chi_{6,1+}, \varphi_{6,1+}$   |
|         | $14 = \bar{13}$ | 0      | $90_3 = \chi_{6,2+}, \varphi_{6,2+}$   |
| $3.G :$ | 15              | 0      | $45_1 = \chi_{32,0+}, \varphi_{24,0+}$ |

|  | blocks      | defect | matrix                                 |
|--|-------------|--------|----------------------------------------|
|  | 16          | 0      | $45_2 = \chi_{32,1+}, \varphi_{24,1+}$ |
|  | $17 = 15^*$ |        |                                        |
|  | $18 = 16^*$ |        |                                        |
|  | 19          | 1      | $5 \times 4$                           |
|  | 20          | 1      | $5 \times 4$                           |
|  | 21          | 1      | $5 \times 4$                           |
|  | $22 = 19^*$ |        |                                        |
|  | $23 = 21^*$ |        |                                        |
|  | $24 = 20^*$ |        |                                        |
|  | 25          | 0      | $90_4 = \chi_{36,0+}, \varphi_{28,0+}$ |
|  | 26          | 0      | $90_5 = \chi_{36,1+}, \varphi_{28,1+}$ |
|  | 27          | 0      | $90_6 = \chi_{36,2+}, \varphi_{28,2+}$ |
|  | $28 = 25^*$ |        |                                        |
|  | $29 = 27^*$ |        |                                        |
|  | $30 = 26^*$ |        |                                        |

| Block 1:              | $\varphi_{1,0}$ | $\varphi_{1,3}$ | $\varphi_{8,0}$ | $\varphi_{8,3}$ |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| $1_1 = \chi_{1,0}$    | 1               | .               | .               | .               |
| $1_4 = \chi_{1,3}$    | .               | 1               | .               | .               |
| $126_1 = \chi_{8,0+}$ | .               | .               | 1               | 1               |
| $64_1 = \chi_{10,0}$  | 1               | .               | 1               | .               |
| $64_4 = \chi_{10,3}$  | .               | 1               | .               | 1               |

$$\begin{aligned}
 \varphi_{1,0} &= 1_1 \\
 \varphi_{1,3} &= 1_4 \\
 \varphi_{8,0} &= 63_1 \\
 \varphi_{8,3} &= 63_4
 \end{aligned}$$

| Block 2:              | $\varphi_{1,1}$ | $\varphi_{1,4}$ | $\varphi_{8,1}$ | $\varphi_{8,4}$ |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| $1_2 = \chi_{1,1}$    | 1               | .               | .               | .               |
| $1_5 = \chi_{1,4}$    | .               | 1               | .               | .               |
| $126_2 = \chi_{8,1+}$ | .               | .               | 1               | 1               |
| $64_2 = \chi_{10,1}$  | 1               | .               | 1               | .               |
| $64_5 = \chi_{10,4}$  | .               | 1               | .               | 1               |

$$\begin{aligned}
 \varphi_{1,1} &= 1_2 \\
 \varphi_{1,4} &= 1_5 \\
 \varphi_{8,1} &= 63_2 \\
 \varphi_{8,4} &= 63_5
 \end{aligned}$$

| <b>Block 3:</b>       | $\varphi_{1,2}$ | $\varphi_{1,5}$ | $\varphi_{8,2}$ | $\varphi_{8,5}$ |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| $1_3 = \chi_{1,2}$    | 1               | .               | .               | .               |
| $1_6 = \chi_{1,5}$    | .               | 1               | .               | .               |
| $126_3 = \chi_{8,2+}$ | .               | .               | 1               | 1               |
| $64_3 = \chi_{10,2}$  | 1               | .               | 1               | .               |
| $64_6 = \chi_{10,5}$  | .               | 1               | .               | 1               |

$$\begin{aligned}
\varphi_{1,2} &= 1_3 \\
\varphi_{1,5} &= 1_6 \\
\varphi_{8,2} &= 63_3 \\
\varphi_{8,5} &= 63_6
\end{aligned}$$

| <b>Blocks 19, 22:</b>  | $\varphi_{27,0}$ | $\varphi_{27,3}$ | $\varphi_{30,2}$ | $\varphi_{30,5}$ |
|------------------------|------------------|------------------|------------------|------------------|
| $21_1 = \chi_{35,0}$   | 1                | .                | .                | .                |
| $21_4 = \chi_{35,3}$   | .                | 1                | .                | .                |
| $126_6 = \chi_{38,2+}$ | .                | .                | 1                | 1                |
| $84_2 = \chi_{40,1}$   | .                | 1                | .                | 1                |
| $84_5 = \chi_{40,4}$   | 1                | .                | 1                | .                |

$$\begin{aligned}
\varphi_{27,0} &= 21_1 \\
\varphi_{27,3} &= 21_4 \\
\varphi_{30,2} &= 63_9 \\
\varphi_{30,5} &= 63_{12}
\end{aligned}$$

| <b>Blocks 20, 24:</b>  | $\varphi_{27,1}$ | $\varphi_{27,4}$ | $\varphi_{30,0}$ | $\varphi_{30,3}$ |
|------------------------|------------------|------------------|------------------|------------------|
| $21_2 = \chi_{35,1}$   | 1                | .                | .                | .                |
| $21_5 = \chi_{35,4}$   | .                | 1                | .                | .                |
| $126_4 = \chi_{38,0+}$ | .                | .                | 1                | 1                |
| $84_3 = \chi_{40,2}$   | .                | 1                | 1                | .                |
| $84_6 = \chi_{40,5}$   | 1                | .                | .                | 1                |

$$\begin{aligned}
\varphi_{27,1} &= 21_2 \\
\varphi_{27,4} &= 21_5 \\
\varphi_{30,0} &= 63_7 \\
\varphi_{30,3} &= 63_{10}
\end{aligned}$$

| <b>Blocks 21, 23:</b>  | $\varphi_{27,2}$ | $\varphi_{27,5}$ | $\varphi_{30,1}$ | $\varphi_{30,4}$ |
|------------------------|------------------|------------------|------------------|------------------|
| $21_3 = \chi_{35,2}$   | 1                | .                | .                | .                |
| $21_6 = \chi_{35,5}$   | .                | 1                | .                | .                |
| $126_5 = \chi_{38,1+}$ | .                | .                | 1                | 1                |
| $84_1 = \chi_{40,0}$   | 1                | .                | .                | 1                |
| $84_4 = \chi_{40,3}$   | .                | 1                | 1                | .                |

$$\begin{aligned}
\varphi_{27,2} &= 21_3 \\
\varphi_{27,5} &= 21_6 \\
\varphi_{30,1} &= 63_8 \\
\varphi_{30,4} &= 63_{11}
\end{aligned}$$