

## $L_2(19).2 \pmod{5}$

|       | blocks | defect | matrix                              |         | blocks | defect | matrix                                  |
|-------|--------|--------|-------------------------------------|---------|--------|--------|---|
| $G :$ | 1      | 1      | $4 \times 2$                        | $2.G :$ | 12     | 0      | $20_9 = \chi_{13+}, \varphi_{9+}$       |
|       | 2      | 1      | $4 \times 2$                        |         | 13     | 1      | $5 \times 1$                            |
|       | 3      | 1      | $5 \times 1$                        |         | 14     | 1      | $5 \times 1$                            |
|       | 4      | 0      | $20_1 = \chi_{9,0}, \varphi_{5,0}$  |         | 15     | 0      | $20_{10} = \chi_{20,0}, \varphi_{12,0}$ |
|       | 5      | 0      | $20_2 = \chi_{9,1}, \varphi_{5,1}$  |         | 16     | 0      | $20_{11} = \chi_{20,1}, \varphi_{12,1}$ |
|       | 6      | 0      | $20_3 = \chi_{10,0}, \varphi_{6,0}$ |         | 17     | 0      | $20_{12} = \chi_{21,0}, \varphi_{13,0}$ |
|       | 7      | 0      | $20_4 = \chi_{10,1}, \varphi_{6,1}$ |         | 18     | 0      | $20_{13} = \chi_{21,1}, \varphi_{13,1}$ |
|       | 8      | 0      | $20_5 = \chi_{11,0}, \varphi_{7,0}$ |         | 19     | 0      | $20_{14} = \chi_{22,0}, \varphi_{14,0}$ |
|       | 9      | 0      | $20_6 = \chi_{11,1}, \varphi_{7,1}$ |         | 20     | 0      | $20_{15} = \chi_{22,1}, \varphi_{14,1}$ |
|       | 10     | 0      | $20_7 = \chi_{12,0}, \varphi_{8,0}$ |         | 21     | 0      | $20_{16} = \chi_{23,0}, \varphi_{15,0}$ |
|       | 11     | 0      | $20_8 = \chi_{12,1}, \varphi_{8,1}$ |         | 22     | 0      | $20_{17} = \chi_{23,1}, \varphi_{15,1}$ |

| <b>Block 1:</b>     | $\varphi_{1,0}$ | $\varphi_{4,1}$ |   |
|---------------------|-----------------|-----------------|---|
| $1_1 = \chi_{1,0}$  | 1               | .               | $\varphi_{1,0} = 1_1$<br>$\varphi_{4,1} = 18_3$ |
| $18_3 = \chi_{4,1}$ | .               | 1               |   |
| $18_5 = \chi_{5,1}$ | .               | 1               |   |
| $19_1 = \chi_{8,0}$ | 1               | 1               |   |

| <b>Block 2:</b>     | $\varphi_{1,1}$ | $\varphi_{4,0}$ |   |
|---------------------|-----------------|-----------------|---|
| $1_2 = \chi_{1,1}$  | 1               | .               | $\varphi_{1,1} = 1_2$<br>$\varphi_{4,0} = 18_2$ |
| $18_2 = \chi_{4,0}$ | .               | 1               |   |
| $18_4 = \chi_{5,0}$ | .               | 1               |   |
| $19_2 = \chi_{8,1}$ | 1               | 1               |   |

| <b>Block 3:</b>     | $\varphi_{2+}$ |                       |
|---------------------|----------------|-----------------------|
| $18_1 = \chi_{2+}$  | 1              | $\varphi_{2+} = 18_1$ |
| $18_6 = \chi_{6,0}$ | 1              |                       |
| $18_7 = \chi_{6,1}$ | 1              |                       |
| $18_8 = \chi_{7,0}$ | 1              |                       |
| $18_9 = \chi_{7,1}$ | 1              |                       |

| <b>Block 13:</b>        | $\varphi_{11,0}$ |
|-------------------------|------------------|
| $18_{10} = \chi_{15,0}$ | 1                |
| $18_{12} = \chi_{16,0}$ | 1                |
| $18_{14} = \chi_{17,0}$ | 1                |
| $18_{16} = \chi_{18,0}$ | 1                |
| $18_{18} = \chi_{19,0}$ | 1                |

$$\varphi_{11,0} = 18_4$$

| <b>Block 14:</b>        | $\varphi_{11,1}$ |
|-------------------------|------------------|
| $18_{11} = \chi_{15,1}$ | 1                |
| $18_{13} = \chi_{16,1}$ | 1                |
| $18_{15} = \chi_{17,1}$ | 1                |
| $18_{17} = \chi_{18,1}$ | 1                |
| $18_{19} = \chi_{19,1}$ | 1                |

$$\varphi_{11,1} = 18_5$$