

## $L_3(4).2_3 \pmod{7}$

	blocks	defect	matrix
$G :$	1	1	$7 \times 6$
	2	0	$35_1 = \chi_{3,0}, \varphi_{3,0}$
	3	0	$35_2 = \chi_{3,1}, \varphi_{3,1}$
	4	0	$70_1 = \chi_{4+}, \varphi_{4+}$
	5	0	$63_1 = \chi_{8,0}, \varphi_{7,0}$
	6	0	$63_2 = \chi_{8,1}, \varphi_{7,1}$
	7	0	$63_3 = \chi_{9,0}, \varphi_{8,0}$
	8	0	$63_4 = \chi_{9,1}, \varphi_{8,1}$
$2.G :$	9	1	$7 \times 6$
	10	0	$28_1 = \chi_{13,0}, \varphi_{11,0}$
	11	0	$28_2 = \chi_{13,1}, \varphi_{11,1}$
	12	0	$28_3 = \chi_{14,0}, \varphi_{12,0}$
	13	0	$28_4 = \chi_{14,1}, \varphi_{12,1}$
	14	0	$70_2 = \chi_{17,0}, \varphi_{14,0}$
	15	0	$70_3 = \chi_{17,1}, \varphi_{14,1}$
$4_1.G :$	16	1	$7 \times 6$
	17 = 16*		
	18	0	$56_1 = \chi_{21,0}, \varphi_{17,0}$
	19	0	$56_2 = \chi_{21,1}, \varphi_{17,1}$

	blocks	defect	matrix
	20 = 18*		
	21 = 19*		
$4_2.G :$	22	1	$5 \times 3$
	23	0	$56_1 = \chi_{26+}, \varphi_{20+}$
	24	0	$56_2 = \chi_{27+}, \varphi_{21+}$
$3.G :$	25	1	$5 \times 3$
	26	0	$42_1 = \chi_{35+}, \varphi_{27+}$
	27	0	$126_1 = \chi_{38+}, \varphi_{28+}$
	28	0	$126_2 = \chi_{39+}, \varphi_{29+}$
	29	0	$168_1 = \chi_{40+}, \varphi_{30+}$
$6.G :$	30	1	$5 \times 3$
	31	0	$84_1 = \chi_{43+}, \varphi_{33+}$
	32	0	$84_2 = \chi_{44+}, \varphi_{34+}$
$12_1.G :$	33	1	$5 \times 3$
	34 = 33 * 7		
$12_2.G :$	35	1	$5 \times 3$
	36	1	$5 \times 3$
	37	0	$168_2 = \chi_{58+}, \varphi_{42+}$
	38	0	$168_3 = \chi_{58*5+}, \varphi_{42*5+}$

<b>Block 1:</b>	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{6,0}$	$\varphi_{6,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	1	.	.	.	.
$20_1 = \chi_{2,0}$	.	1	1	.	.	.
$20_2 = \chi_{2,1}$	1	.	.	1	.	.
$90_1 = \chi_{6+}$	.	.	.	.	1	1
$64_1 = \chi_{10,0}$	.	.	1	.	1	.
$64_2 = \chi_{10,1}$	.	.	.	1	.	1

$$\begin{aligned}
 \varphi_{1,0} &= 1_1 \\
 \varphi_{1,1} &= 1_2 \\
 \varphi_{2,0} &= 19_1 \\
 \varphi_{2,1} &= 19_2 \\
 \varphi_{6,0} &= 45_1 \\
 \varphi_{6,1} &= 45_2
 \end{aligned}$$

<b>Block 9:</b>	$\varphi_{9,0}$	$\varphi_{9,1}$	$\varphi_{10,0}$	$\varphi_{10,1}$	$\varphi_{13,0}$	$\varphi_{13,1}$	
$20_3 = \chi_{11+}$	1	1	.	.	.	.	$\varphi_{9,0} = 10_1$
$36_1 = \chi_{15,0}$	1	.	1	.	.	.	$\varphi_{9,1} = 10_2$
$36_2 = \chi_{15,1}$	.	1	.	1	.	.	$\varphi_{10,0} = 26_1$
$64_3 = \chi_{16,0}$	.	.	.	.	1	.	$\varphi_{10,1} = 26_2$
$64_4 = \chi_{16,1}$	.	.	.	.	.	1	$\varphi_{13,0} = 64_1$
$90_2 = \chi_{18,0}$	.	.	.	1	1	.	$\varphi_{13,1} = 64_2$
$90_3 = \chi_{18,1}$	.	.	1	.	.	1	

<b>Blocks 16, 17:</b>	$\varphi_{15,0}$	$\varphi_{15,1}$	$\varphi_{16,0}$	$\varphi_{16,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$	
$8_1 = \chi_{19,0}$	1	.	.	.	.	.	$\varphi_{15,0} = 8_1$
$8_2 = \chi_{19,1}$	.	1	.	.	.	.	$\varphi_{15,1} = 8_2$
$8_5 = \chi_{20,0}$	.	.	1	.	.	.	$\varphi_{16,0} = 8_5$
$8_6 = \chi_{20,1}$	.	.	.	1	.	.	$\varphi_{16,1} = 8_6$
$64_5 = \chi_{22,0}$	.	.	.	.	1	.	$\varphi_{18,0} = 64_3$
$64_6 = \chi_{22,1}$	.	.	.	.	.	1	$\varphi_{18,1} = 64_4$
$160_1 = \chi_{23+}$	1	1	1	1	1	1	

<b>Block 22:</b>	$\varphi_{19+}$	$\varphi_{22+}$	$\varphi_{23+}$	
$40_1 = \chi_{25+}$	1	.	.	$\varphi_{19+} = 40_1$
$72_1 = \chi_{28+}$	.	1	.	$\varphi_{22+} = 72_1$
$128_1 = \chi_{29+}$	1	.	1	$\varphi_{23+} = 88_1$
$160_1 = \chi_{30+}$	.	1	1	
$160_2 = \chi_{31+}$	.	1	1	

<b>Block 25:</b>	$\varphi_{24+}$	$\varphi_{25+}$	$\varphi_{26+}$	
$30_1 = \chi_{32+}$	1	.	.	$\varphi_{24+} = 30_1$
$30_2 = \chi_{33+}$	.	1	.	$\varphi_{25+} = 30_2$
$30_3 = \chi_{34+}$	.	.	1	$\varphi_{26+} = 30_3$
$90_4 = \chi_{36+}$	1	1	1	
$90_5 = \chi_{37+}$	1	1	1	

<b>Block 30:</b>	$\varphi_{31+}$	$\varphi_{32+}$	$\varphi_{35+}$	
$12_1 = \chi_{41+}$	1	.	.	$\varphi_{31+} = 12_1$
$72_1 = \chi_{42+}$	.	1	.	$\varphi_{32+} = 72_1$
$120_1 = \chi_{45+}$	1	.	1	$\varphi_{35+} = 108_1$
$120_2 = \chi_{46+}$	1	.	1	
$180_1 = \chi_{47+}$	.	1	1	

<b>Block 33:</b>	$\varphi_{36+}$	$\varphi_{37+}$	$\varphi_{38+}$	
$48_1 = \chi_{48+}$	1	.	.	$\varphi_{36+} = 48_1$
$48_2 = \chi_{49+}$	1	.	.	$\varphi_{37+} = 96_1$
$96_1 = \chi_{50+}$	.	1	.	$\varphi_{38+} = 96_3$
$96_3 = \chi_{51+}$	.	.	1	
$240_1 = \chi_{52+}$	1	1	1	

<b>Block 35:</b>	$\varphi_{39+}$	$\varphi_{40+}$	$\varphi_{41+}$	
$72_3 = \chi_{53+}$	.	1	.	$\varphi_{39+} = 24_1$
$96_1 = \chi_{54+}$	.	.	1	$\varphi_{40+} = 72_3$
$96_3 = \chi_{55+}$	1	1	.	$\varphi_{41+} = 96_1$
$120_3 = \chi_{56+}$	1	.	1	
$120_6 = \chi_{57+}$	1	.	1	

<b>Block 36:</b>	$\varphi_{39**7+}$	$\varphi_{40*5+}$	$\varphi_{41**7+}$	
$72_4 = \chi_{53*5+}$	.	1	.	$\varphi_{39**7+} = 24_2$
$96_2 = \chi_{54*41+}$	1	1	.	$\varphi_{40*5+} = 72_4$
$96_4 = \chi_{55*41+}$	.	.	1	$\varphi_{41**7+} = 96_2$
$120_4 = \chi_{56*29+}$	1	.	1	
$120_5 = \chi_{56*43+}$	1	.	1	