

# $L_2(27) \pmod{3}$

	blocks	defect	matrix
$G :$	1 2	3 0	$15 \times 13$ $27_1 = \chi_{10}, \varphi_{14}$
$2.G :$	3	3	$15 \times 13$

<b>Block 1:</b>	$\varphi_1$	$\varphi_2$	$\varphi_3$	$\varphi_4$	$\varphi_5$	$\varphi_6$	$\varphi_7$	$\varphi_8$	$\varphi_9$	$\varphi_{10}$	$\varphi_{11}$	$\varphi_{12}$	$\varphi_{13}$
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.	.	.
$13_1 = \chi_2$	1	.	.	.	1	1	1	.	.	.	.	.	.
$13_2 = \chi_3$	1	.	.	.	1	1	1	.	.	.	.	.	.
$26_1 = \chi_4$	.	.	1	1	1	.	1	.	.	.	.	1	.
$26_2 = \chi_5$	.	1	1	.	.	1	1	.	.	.	1	.	.
$26_3 = \chi_6$	.	1	.	1	1	1	.	.	.	.	.	.	1
$26_4 = \chi_7$	1	.	.	.	.	.	1	.	1	.	1	.	.
$26_5 = \chi_8$	1	.	.	.	.	1	.	1	.	.	.	.	1
$26_6 = \chi_9$	1	.	.	.	1	.	.	.	.	1	.	1	.
$28_1 = \chi_{11}$	1	1	.	.	1	1	1	.	.	.	1	.	.
$28_2 = \chi_{12}$	1	.	.	1	1	1	1	.	.	.	.	.	1
$28_3 = \chi_{13}$	1	.	1	.	1	1	1	.	.	.	.	1	.
$28_4 = \chi_{14}$	.	.	.	1	1	.	.	.	.	1	.	1	.
$28_5 = \chi_{15}$	.	.	1	.	.	.	1	.	1	.	1	.	.
$28_6 = \chi_{16}$	.	1	.	.	.	1	.	1	.	.	.	.	1

$$\begin{array}{ll}
 \varphi_1 = 1_1 & \varphi_8 = 9_1 \\
 \varphi_2 = 3_1 & \varphi_9 = 9_2 \\
 \varphi_3 = 3_2 & \varphi_{10} = 9_3 \\
 \varphi_4 = 3_3 & \varphi_{11} = 12_1 \\
 \varphi_5 = 4_1 & \varphi_{12} = 12_2 \\
 \varphi_6 = 4_2 & \varphi_{13} = 12_3 \\
 \varphi_7 = 4_3 &
 \end{array}$$

<b>Block 3:</b>	$\varphi_{15}$	$\varphi_{16}$	$\varphi_{17}$	$\varphi_{18}$	$\varphi_{19}$	$\varphi_{20}$	$\varphi_{21}$	$\varphi_{22}$	$\varphi_{23}$	$\varphi_{24}$	$\varphi_{25}$	$\varphi_{26}$	$\varphi_{27}$
$14_1 = \chi_{17}$	1	1	1	.	.	.	.	.	.	1	.	.	.
$14_2 = \chi_{18}$	1	1	1	.	.	.	.	.	.	1	.	.	.
$26_7 = \chi_{19}$	.	.	.	.	.	.	1	1	1	1	.	.	.
$26_8 = \chi_{20}$	.	.	1	.	1	.	.	.	.	.	1	.	.
$26_9 = \chi_{21}$	.	1	.	1	.	.	.	.	.	.	.	.	1
$26_{10} = \chi_{22}$	1	.	.	.	.	1	.	.	.	.	.	1	.
$26_{11} = \chi_{23}$	1	1	1	.	.	1	.	1	.	1	.	.	.
$26_{12} = \chi_{24}$	1	1	1	.	1	.	1	.	.	1	.	.	.
$26_{13} = \chi_{25}$	1	1	1	1	.	.	.	.	1	1	.	.	.
$28_7 = \chi_{26}$	1	.	1	.	1	.	.	.	.	.	1	.	.
$28_8 = \chi_{27}$	.	1	1	1	.	.	.	.	.	.	.	.	1
$28_9 = \chi_{28}$	1	1	.	.	.	1	.	.	.	.	.	1	.
$28_{10} = \chi_{29}$	.	.	1	.	1	.	1	1	.	1	.	.	.
$28_{11} = \chi_{30}$	.	1	.	1	.	.	1	.	1	1	.	.	.
$28_{12} = \chi_{31}$	1	.	.	.	.	1	.	1	1	1	.	.	.

$$\begin{aligned} \varphi_{15} &= 2_1 \\ \varphi_{16} &= 2_2 \\ \varphi_{17} &= 2_3 \\ \varphi_{18} &= 6_1 \\ \varphi_{19} &= 6_2 \\ \varphi_{20} &= 6_3 \\ \varphi_{21} &= 6_4 \end{aligned}$$

$$\begin{aligned} \varphi_{22} &= 6_5 \\ \varphi_{23} &= 6_6 \\ \varphi_{24} &= 8_1 \\ \varphi_{25} &= 18_1 \\ \varphi_{26} &= 18_2 \\ \varphi_{27} &= 18_3 \end{aligned}$$