ADGC for Sporadic Groups

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Below we list all non-cyclic, abelian, faithful[1] blocks of sporadic groups and their covers, excluding principal blocks in characteristic $p = 2$.

These results were obtained with the GAP character table library. Blocks are numbered as they are in GAP. The number of ordinary and Brauer characters in a block are denoted by k and ℓ, respectively.

$p = 2$				
group	blocks	defects	k	ℓ
M_{12}	2	2	4	3
$12.\mathsf{M}_{22}$	4, 5	2, 2	4, 4	1, 1
J_2	2	2	4	3
HS	2	2	4	3
Ru	2	2	4	3
Co_3	2	3	8	5
$2.\mathsf{Fi}_{22}$	3	2	4	1
Fi'_{24}	2	2	4	3

$p = 3$				
group	blocks	defects	k	ℓ
M_{11}	1	2	9	7
M_{22}	1	2	6	5
$2.\mathsf{M}_{22}$	6	2	6	5
$3.\mathsf{M}_{22}$	2	2	9	2
$4.\mathsf{M}_{22}$	10, 11	2, 2	6, 6	5, 5
$6.\mathsf{M}_{22}$	7	2	9	2
M_{23}	1	2	9	7
HS	1, 2	2, 2	9, 9	7, 7
2.HS	7	2	9	5
$3.\mathsf{J}_3$	2	2	9	2
He	2	2	9	7
Suz	2	2	6	5
3.Suz	3	2	9	2
ON	1, 2	4, 2	18, 6	14, 5
$3.\mathsf{Fi}_{22}$	2, 3	2, 2	9, 9	2, 2
HN	2	2	9	7
Co_1	3	2	9	5
J_4	6	2	9	5
Fi'_{24}	2	2	6	4
B	2, 3, 6	2, 2, 2	9, 9, 9	7, 7, 5

[1] cf. Chapter 5, Section 8 of "Representations of Finite Groups" by Nagao-Tsushima

$p = 5$				
group	blocks	defects	k	l
J_2	1	2	14	6
$2.\mathsf{J}_2$	6	2	14	6
He	1	2	16	14
Suz	1	2	16	12
$2.\mathsf{Suz}$	19	2	16	12
$3.\mathsf{Suz}$	18, 19	2, 2	16, 16	12, 12
$6.\mathsf{Suz}$	59, 60	2, 2	16, 16	12, 12
Fi_{22}	1	2	20	16
$2.\mathsf{Fi}_{22}$	39	2	20	16
$3.\mathsf{Fi}_{22}$	39, 40	2, 2	20, 20	16, 16
$6.\mathsf{Fi}_{22}$	107, 108	2, 2	20, 20	16, 16
Fi_{23}	1, 2	2, 2	20, 20	16, 16
Co_1	3	2	16	12
Fi'_{24}	1, 2, 3	2, 2, 2	20, 16, 20	16, 14, 16
$3.\mathsf{Fi}'_{24}$	45, 46, 47, 48	2, 2, 2, 2	20, 20, 20, 20	16, 16, 14, 14
B	2, 8	2, 2	20, 20	16, 16
M	4	2	20	16

$p = 7$				
group	blocks	defects	k	ℓ
Th	1	2	27	24
Co_1	1	2	27	21
$2.\mathsf{Co}_1$	46	2	27	21
B	1, 2, 4	2, 2, 2	27, 27, 27	24, 24, 21
$2.\mathsf{B}$	73	2	27	24
M	2	2	27	24

$p = 11$				
group	blocks	defects	k	ℓ
M	1	2	50	45