

# THE SUBGROUP LATTICE OF $PGL_2(7) \cong L_2(7) : 2$

THOMAS CONNOR AND DIMITRI LEEMANS

Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	$L_2(7) : 2$	336	1	2, 3 (8), 6 (21), 8 (28)	
2	$L_2(7)$	168	1	4 (14), 5 (8)	1
3	$7 : 3 : 2$	42	8	5, 7, 14 (7)	1
4	$2^2 : S_3$	24	14	9, 10 (3), 15 (4)	2
5	$7 : 3$	21	8	13, 20 (7)	2, 3
6	$D_{16}$	16	21	11, 12, 10	1
7	$D_{14}$	14	8	13, 21 (7)	3
8	$D_{12}$	12	28	15, 14, 16, 17 (3)	1
9	$A_4$	12	14	18, 20 (4)	4
10	$D_8$	8	21	18 (2), 19	4 (2), 6
11	$D_8$	8	21	17 (2), 19	6
12	8	8	21	19	6
13	7	7	8	23	5, 7
14	6	6	28	20, 21	3 (2), 8
15	$S_3$	6	28	20, 22 (3)	4 (2), 8
16	$S_3$	6	28	20, 21 (3)	8
17	$2^2$	4	42	21 (2), 22	8 (2), 11
18	$2^2$	4	14	22 (3)	9, 10 (3)
19	4	4	21	22	10, 11, 12
20	3	3	28	23	5 (2), 9 (2), 14, 15, 16
21	2	2	28	23	7 (2), 14, 16 (3), 17 (3)
22	2	2	21	23	15 (4), 17 (2), 18 (2), 19
23	1	1	1		13 (8), 20 (28), 21 (28), 22 (21)

TABLE 1. Subgroup lattice of  $L_2(7) : 2$

UNIVERSITÉ LIBRE DE BRUXELLES, DÉPARTEMENT DE MATHÉMATIQUES - C.P.216, BOULEVARD DU TRIOMPHE,  
B-1050 BRUXELLES, BOURSIER FR1A  
*E-mail address:* [tconnor@ulb.ac.be](mailto:tconnor@ulb.ac.be)

UNIVERSITY OF AUCKLAND, DEPARTMENT OF MATHEMATICS, PRIVATE BAG 92019, AUCKLAND, NEW ZEALAND  
*E-mail address:* [d.leemans@auckland.ac.nz](mailto:d.leemans@auckland.ac.nz)

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