Improvements to the ATLAS – II

This list contains improvements not in Appendix 2 of "An Atlas of Brauer characters" (by Jansen, Lux, Parker & Wilson, OUP 1995), hitherto referred to as ABC. While some of them are new (i.e. not discovered at the time of publication of ABC), others were deliberately left out of ABC because they were not thought significant enough, or because they did not fit the format of ABC; but we believe that they are worth keeping on record.

As in ABC, we denote mathematical errors by *** and new information by NEW. We use C to denote improvements concerning grammar or notational consistency; and M to refer to misprints or cases of illegibility. Changes are shown in order of appearance. New references are not shown. The inclusion or otherwise of any modification is not intended to imply anything about its inclusion in any future ATLAS publication.

A character table in ATLAS format has been obtained for ${}^2E_6(2).3$.

Introduction

C	Page iv	: Top, insert "page" before "number".
M	Page vii	: Top left, change head of Section 1 to Preliminaries.
C		: Section 2, change "to" to "from" after "differently".
NEW	Page xi	: Middle right, for sake of completeness append description of orthogonal groups in dimensions 1 and 2.
C	Page xiv	: Middle left, omit "to" in "also to specify".
M	Page xxv	: Section 5, insert i in "contans".
C	Page xxix	: Middle right, singularize "act".
NEW		: In Section 18, specify notational convention where both coset and cohort are "squashed".
C	Page xx	: Middle right, insert "it" between "which" and "becomes".
M	Page xxxi	: Section 1, replace "product" by "produce".

The Groups

NEW	Page	4	A_6	: In Linear section line 2, replace $G.2$ by $G.2_2$.
C	Page	12	$L_2(16)$	: Singularize "Presentations".
C	Page	14	$U_3(3)$	: In 3rd Max, replace $4.S_4{:}2$ by $2_+^{1+4}.S_3$.
C	Page	21	$L_2(31)$	: Singularize "Presentations".
C	Page	29	$L_2(32)$	: Singularize "Presentations".
NEW	Page	30	$U_3(4)$	: In 3rd Max, $N(5^2)$ is also $N(5A\text{–}D_3EF_3)$.
C	Page	31	M_{12}	: In MINIMOG section line 6, close bracket.
NEW	Page	33		: In 9th Max, replace $H.2$ by $M_8.(S_4 \times 2)$.
M	Page	36	J_1	: Raise most of bottom line in Graph section.
C				: Replace $=$ by $\cong$ in presentation.
C				: In 6th Max, replace D_6 by S_3.
NEW	Page	42	J_2	: In 4th Max, replace $H.2$ by $2^{2+4}.(S_3 \times S_3)$.
NEW	Page	53	$U_4(3)$	: 1st Max is $N(3^4) = N(3A_{10}B_{15}C_{15})$.
NEW	Page	70	$L_5(2)$	: In 3rd and 4th Maxes, $N(2^6)$ is also $N(2A_{21}B_{42})$.
C	Page	73	$U_5(2)$	: In 4th Max, remove brackets round AB and CD.
NEW	Page	74	$L_3(8)$	: In 3rd Max, $N(7^2)$ is also $N(7A\text{–}F_3GH_2IJK_3)$.
NEW	Page	79	$U_3(9)$	: In 4th Max, $N(5^2)$ is also $N(5A\text{–}D_3EF_3)$.
C	Page	80	HS	: 2nd, 3rd, 6th, 7th, 9th and 11th Maxes respectively fix $233-2323$, $233-2332$, $233-2433$, $233-2433$, $233-2343$ and $233-2433$ points. For the 6th, 7th and 11th this is a further change, in all cases designed to conform with a convention that in $abc-defg$ the sums of (the vector corresponding to) d with a, b, c are e, f, g respectively.

C	Page 83	J_3	: Replace $r6*$ by $r6\ \ -r6$ in χ_9.
C	Page 89	$O_8^-(2)$	: Pluralize "Presentation".
***		${}^3D_4(2)$	: Replace top row (but not first column) occurrences of $\frac{1}{4}s$ by $\frac{1}{4}\overline{s}$ in 768 matrix orbit.
M			: Delete comma before slash in line after display of roots.
NEW			: In 7th Max, $N(7^2)$ is also $N(7A\text{–}C_4D_4)$.
C	Page 100	McL	: 3rd, 7th and 10th Maxes respectively fix $223-2324$, $223-2443$ and $223-2434$ points. For the 7th this is a further change. See amendment to Page 80 above.
C	Page 109	$O_7(3)$	: Pluralize "Presentation".
***			: In 14th Max, replace $2E$ by $2F$.
C	Page 111	$S_6(3)$	: Move "Specifications".
NEW	Page 113		: 2nd Max is $N(3^6) = N(3AB_{13}C_{39}D_{78}E_{234})$.
NEW			: 3rd Max is $N(3^3) = N(3AB_4C_3D_6)$.
***			: In 7th Max, extensions are split.
NEW	Page 115	$U_6(2)$	: $N(2^9)$ is also $N(2A_{21}B_{210}C_{280})$.
C			: 5th, 6th, 11th and 12th Maxes respectively fix $222-2323$, $222-2332$, $222-2433$ and $222-2343$ points. See amendment to Page 80 above.
C	Page 122	$R(27)$	: Insert separator between $R(27)$ and $S_8(2)$.
C		$S_8(2)$	: Pluralize "a presentation".
NEW			: 7th Max is $N(2^6) = N(2A_7B_7C_{21}E_{28})$.
C	Page 129	Suz	: Replace $r10*$ by $r10\ \ -r10$ in χ_{40}.
C	Page 131		: Pluralize "Presentation".
C	Page 140	$O_8^+(3)$	: Pluralize "a presentation".
NEW			: Maxes 7-9 are also $N(3^6)$.
***			: In 8th and 9th Maxes, replace $3^6{:}(L_4(3)\times 2)$ by $3^6{:}(L_4(3){:}2_1)$.
NEW	Page 146	$O_{10}^+(2)$	: In 2nd Max, $N(2^8)$ is also $N(2A_{135}B_{120})$.
NEW			: In 3rd and 4th Maxes, $N(2^{10})$ is also $N(2A_{155}C_{868})$.
NEW	Page 147	$O_{10}^-(2)$	: In 1st Max, $N(2^8)$ is also $N(2A_{119}B_{136})$.
NEW			: In 5th Max, $N(2^6)$ is also $N(2A_{35}C_{28})$.
NEW			: In 6th Max, replace $N(2^3)$ by $N(2A^3)$.
C			: In last Max, $N(3A_2D_2)$ is also $N(3^2)$.
NEW	Page 154	Co_2	: In 2nd Max, $N(2^{10})$ is also $N(2A_{77}B_{330}C_{616})$.
NEW			: In 8th Max, replace $N(2^4)$ by $N(2B^4)$.
NEW	Page 177	Fi_{23}	: In 6th Max, $N(2^{11})$ is also $N(2A_{23}B_{253}C_{1771})$.
NEW			: In 11th Max, $N(2^6)$ is also $N(2A_7B_{21}C_{35})$.
C	Page 182	Co_1	: Near bottom, pluralize "portion", "group" and "parenthesis".
C	Page 191	${}^2E_6(2)$	: Replace 3^2Q_8 by $3^2{:}Q_8$.
NEW	Page 217	B	: New Maxes M_{11}, $L_3(3)$, $L_2(17){:}2$ and $L_2(11){:}2$. With the classification of all 2-locals, the list is now complete except possibly for groups of type $U_3(3)$ or $U_3(3){:}2$. Furthermore, in the group $(S_6\times L_3(4){:}2){:}2$ quoted in the original list of amendments, the first ":2" is in fact ":2_2".
C	Page 230	M	: Pluralize "Presentation".
M			: Replace , by . in last line before list of groups.
NEW	Page 234		: The list of Maxes that are 2-local or normalizers of products of two or more simple groups is complete.

Additional Information

C	Page 239	: Pluralize "Order".
NEW		: Insert sentence: groups whose full character tables are in the Atlas are starred, while a bracketed star is appended to other Atlas groups and to those for which all or part of the character table exists in Atlas format. Also, insert relevant stars, with or without brackets, in pages 239-242.

Bibliography

M Page 247 : line 3: Replace 243 by 323.

The number of changes of each type is as follows: 4*** 26NEW 30C 7M.

Last update 28 August 1996; this file has 136 lines.