List of Errors **DESIGNS AND THEIR CODES** (1992 Hardback Edition, ISBN 0-521-41361-3) **E. F. Assmus, Jr** and **J. D. Key**

Page	Line	
16	-12	for "simply a complete graph" read
		"a partition of the 6-set into 2-subsets"
16	-11	delete "also"
20	16	for " $r - \lambda = 2m$ " read " $r + \lambda = 2m$ "
22	-13, -8, -2	for " $Tac(\mathcal{P})$ " read " $Tac(\mathcal{B})$ "
22	-12	for " $Tac(\mathcal{B})$ " read " $Tac(\mathcal{P})$ "
23	6	for " $Tac(\mathcal{B})$ " read " $Tac(\mathcal{P})$ "
23	18	for " $Tac(\mathcal{P})$ " read " $Tac(\mathcal{B})$ "
38	-16	for "occured" read "occurred"
41	6	remove space before comma
43	2	for " \mathcal{B} that is" read " \mathcal{B} ; that is"
51	12	insert space between " \mathcal{P}' " and "there"
53	-2	for "13" read "14"
54	-3	for "precisely the" read "a"
54	-1	remove "precisely the set of"
57	-2	for "by the" read "by"
61	-12	remove fullstop at end of display
65	2	remove first occurrence of "matrix"
72	20	read "parity-"
76	4	insert fullstop at end of sentence
81	15	for "quadratic-" read "quadratic"
83	5-6	insert another line with the entry " $A_{25} = 1379700$ "
83	-6	for "37" read "36"
85	-4	for "codes" read "code"
86	2	for " $W_{C}^{\perp}(Z) = B_i Z^{i}$ " read " $W_{C^{\perp}}(Z) = \sum_i B_i Z^{i}$ "
86	7	for " $W_C^{\perp}(Z)$ " read " $W_{C^{\perp}}(Z)$ "
90	13	remove "or"
91	-7	for " $0 \le k$ " read " $0 < k$ "
104	16	for " $x' \in Q'$ " read " $y' \in Q'$ "
104	17	for " $y - y'$ " read " $y' - y$ " (twice)
112	9, 10	for "a $(q+)$ " read "an $(n+)$ "
115	10	for "fixed" read "a fixed"
121	-2	read "Furthermore"
123	14	for "Fix (g) " read " Fix (g) "
124	13	quote marks wrong
128	-15	for "the the" read "the"
133	18	for "the Lemma" read "Lemma"
134	-4	read "projective-"
134	-4	read "geometry"
134	-1	read "projective-"

Page	Line	
135	20	remove space between 8 and comma
135	-5	include name Hall before [117]
143	-9	"a generator"
149	11	for " $m - r - 1$ " read " $m - r$ "
154	16	q should not be bold-face
156	12	insert \Box at end of line
158	21	for "and the" read "and"
166	11	read "positions"
171	-13	for " $\sum_{i=0}^{v-1}$ " read " $\sum_{i=0}^{v-1} c_i Z^j$ "
171	-6	for " $\mathcal{N}_{\nu}(m,q)$ " read " $\mathcal{N}_{E}(\nu,m)$ "
172	3, 5	for "8" read "7"
173	-12	for " $\mathcal{N}_{\nu/b}(m,q)$ " read " $\mathcal{N}_E^b(\nu,m)$ "
173	-12	for " $\mathcal{N}_{\nu}(m,q)$ " read " $\mathcal{N}_{E}(\nu,m)$ "
173	-10	for " $\mathcal{N}_{\nu/b}(m,q)$ " read " $\mathcal{N}_{E}^{b}(\nu,m)$ "
173	-5	for " (ν, m) " read " $(\nu, m)^*$ "
173	-5	for " (kb, m) " read " $(kb, m)^*$ "
174	5	for "root a" read "root ω "
176	-10, -11	for " (ν, m) " read " $(\nu, m)^*$ "
177	8	for " $\mathcal{N}_{(r(q-1))/b}(m,q)$ " read " $\mathcal{N}^b_E(r(q-1),m)$ "
180	14	for ")of" read ") of"
180	-4	for "the the" read "the"
181	-6	" T " too small
187	-5	for " \mathcal{P} " read " \mathcal{A} "
189	-12	for " \mathcal{R}_{F_q} " read " \mathcal{A}_{F_q/F_p} "
189	-12	remove "(over E)"
192	13	include space before Bagchi
192	16	for "/ge" read " \geq "
192	-14	insert full stop at end of line
194	1	for "the the" read "the"
194	2	read "preceding"
194	2	add "is" at end of line
194	4	for " (ν, m) " read " $(\nu, m)^*$ "
201	2	delete "of"
203	21	for "or" read "of"
212	-11	for "the (" read "(the "
214	13	This exercise is not correct. Words of weight $q + 4$ may exist.
215	13	for "it" read "its"
215	14	for "line" read "lines"
218	18	for "Desargues" read "Desargues"
221	-3 14	replace comma by run stop at end of line for " DC " read " $\Pi = DC$ "
222	-14 14	for " $C(\mathbf{F}_{\perp})$ " and " $C(\mathbf{T})$ "
222 227	-14 1 E	for "mod" read $\mathcal{O}(\Pi)$
221 220	-4, -0 0 1	for "code" road "code"
449 939	$^{2}, 4$	for " $n(e-1)$ " read " $n(e-i)$ "
494	10	p(s - i) read $p(s - i)$

Page	Line	
236	3-6	for "The conjecture16." read "The sweeping conjecture of Hamada proved false as Tonchev [280] observed and, in fact, Delsarte and Goethals [105] had noticed the counter-example in 1968 — even before the conjecture was made!"
249	-7	for "Hamadada" read "Hamada"
260	17	read "code-"
274	17	for "p" read " $p (q+1)$ "
278	-1	read "1. However, "
285	16, 17	for "are" read "is"
286	5, 4	move " 42_D^{32} to line 4, replace " 32_D^{42} " by " 32_C^{42} "
290	8	for "D" read " D_1 "
304	16, 18	for " $\sqrt{(n^3 - 2n^2 - 1)/2}$ " read " $\frac{1}{2}(1 + \sqrt{(2n^3 - 6n^2 + 9)})$ "
304	20	for " $\sqrt{(2^{3m}-2^{2m+1}-1)/2}$ " read " $\frac{1}{2}(1+\sqrt{(2^{3m+1}-2^{2m+1}3+9)})$ "
309	14	for "did is" read "do is"
311	5	read "prime powers"
311	21	In the last line of the proof, before the final sentence, insert: "If p divides $m-1$ and does not divide $m+1$ then summing all the blocks shows that $\mathbf{j} \in C_p(\mathcal{I})$. Further, summing all the blocks through any two distinct points x and y , gives a vector with entry $m+1$ at x and y and 1 elsewhere. Since $m+1 \equiv 2 \pmod{p}$, this implies that $v^{\{x\}} + v^{\{y\}} \in C_p(\mathcal{I})$. Taking a third point z gives $v^{\{x\}} - v^{\{y\}}$, and hence $v^{\{x\}}$, in $C_p(\mathcal{I})$ for any x , since $p \neq 2$." Bibliography
318		[14]: coding-theoretic
320		[51]: read "Grenzgebiete"

- 321 [62]: read "Z."
- 323 [85], [90]: read "Grenzgebiete"
- 326 [145]: for "Endlichen" read "Endliche"
- 334 [272]: for "de" read "di"

Glossary

337 6 in the right-hand column, delete "= $\sum_{v \in V}$ "

Index

- 348 8 Hamada-Sachar goes after Hamada-Ohmori
- 349 12 line, add 8, 121-2
- 349 14 include Mattson-Solomon polynomial, 169
- 350 -15 include Mattson-Solomon, 169
- 351 21 for "quadriatic" read "quadratic"