

Engelbert's corrections to Diff. Geometry for Physicists:

any \rightarrow all (?)

p. 3, 8 $j \rightarrow i$

6 12 $v \rightarrow V$

7 8 $a \rightarrow \alpha$

8 incorrect formula for curl

10 6 A_i

13 2 o_i , check o_a , det? a^{-1} ?

14 6 $m \times m$

14 1-4 $k(s)$ instead of a

15 3 ϕ

19 6 $i_{K \oplus L}$

22 1 $i_{(H)L}$

28 fig $P \rightarrow p$

31 11 i_{x^i} dx^i

37: ES suggest to generate φ_i by $e^{t\alpha}$

38 8 cl_i of \mathcal{L}

66 fig 16 $id_u \rightarrow id_{u'}$

67 fig 18 $P \rightarrow p$

72 (5) $P_2 \rightarrow P_2$

78 - 12 i.e.?

79 solder form, fig u wrong placed, $T_e \pi(u)$

81 (ii) $\nabla_{f_u + g_v}$

82 3 advantages (?)

83 fig 29 $Lift \rightarrow lift$

85 identify $H_{\mathbb{C}(t)}$

86 2 $arcH$ of \mathcal{L}

87 6 $v = n+1, \dots, p$

87 8 $\mathcal{F} \rightarrow \mathcal{F}$

87 8 $\text{cont} \rightarrow \text{const}$

87 2 $T \rightarrow T^{-1}$
second

89 12 value of d

90 8 $(R+1)$

93 $\text{alt.}(30) \odot \mathbb{Q}$

98 Exercises 1

98 5 $a^n \rightarrow a^{-n}$ 6 $= \rightarrow :$

103 8 id
u (op)

104 9 $f'(p) = \psi_{\text{sup}} f(p)$

105 4 corresponds

105 11 Ω^2

106 $F_{3,77}$ subtorus \rightarrow abscissa $(2x)$

109 like non-trivial

113 $v \rightarrow v$

117 $B^0(M) = 0$

118 7 $\lim_{t \rightarrow \infty}$

120 3 $od \rightarrow of$

124 add connected in Poincaré dual of K

143 Morphism of principal bundles

144 Thermodynamics

8

WATT zfy

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pag. 61	line -4	$\begin{pmatrix} z_1 & z_2 \\ -\bar{z}_2 & z_1 \end{pmatrix}$,	$\begin{pmatrix} z_1 & z_2 \\ -\bar{z}_2 & \bar{z}_1 \end{pmatrix}$		
pag. 60	line +2	$p(q) = p(q')$,	$p(q) = p(q')$	
pag. 71	+15	$l(p,q) = (h(p, L), q)$	,	$l(p,q) = k(h(p, L), q)$		
95	+13	....	$\omega_{ij} + \omega_{ji} = 0$	....	,	$\omega_{ij} + \omega_{ji} = dg_{ij}$
98	+13	$DA' = \rho'_{S-1} DA$	,	$DA' = \rho'_{S-1} DA$?	
101	-1	....	$R_{33} = H_{xx} + H_y$	....	,	....
109	-15	$iF = f^* \Omega = f^* d\omega = f(f^* \omega)$	....	,
						.... = $f^* d\omega = d(f^* \omega)$
90	-1	$f : G' \rightarrow L(V)$	,	$f' : G' \rightarrow L(V)$		
90	-8	....	$(y+1)$ -form	....	,	$(k+1)$ -form
121	+3	$F^k_i : \Delta^k \rightarrow \Delta^{k+1}$	....	,	$F^k_i : \Delta^{k+1} \rightarrow \Delta^k$?
127	+3	....	$A = f^* a$	....	,	$A = f^* \alpha$

Comments by Eric Goldblatt

1. The statement at the bottom of p.11
"FCV) has not been defined"
is not correct. It is defined in the middle
of p.3, end of the second paragraph.

2. The middle of p.71

" $l(p,q) = h(p,1), q$ provides..."
should read " $l(p,q) = k(h(p,1), q)$ provides..."

(if you see him)

3. If the book is ever revised, tell Trautman,

a) The notation T_p introduced on p. 34 is
nonstandard - just use "d".

b) On page 50, h' should be defined simply
as dh

c) On p. 57, $\psi'_A(m)$ should be replaced by
 $d_m(Ae)$, where m is the function

$m: G \rightarrow M$ defined by $m(g) = gm$.

and similarly for page 84.