–VERSION 1–Mar 6, 1992–

ERRATA

Corrections to
Applied Differential Geometry

William L. Burke

page 20 line 15 from bottom:

`change` equation (1.1) `to` equation (1.2)

page 21 line 13 from top:

`change` $\frac{d\gamma}{ds}(s)e_a$ `to` $\frac{d\gamma^a}{ds}(s)e_a$

page 22 line 13 from top:

`change` convection `to` convention

page 22 line 5 from bottom:

`change` $x \mapsto 3x$ `to` $u \mapsto 3u$. Here x or u is a dummy variable.

page 23 line 2 from top:

`change` by the m `to` by the n

page 24 line 3 from top:

`change` $= Ah^t + hA^t.$ `to` $= F(A) + Ah^t + hA^t.$

page 26 line 8 from bottom:

`change` $= (0,1,2),(0,-1,-2).$ `to` $= (0,1,\frac{1}{2}),(0,-1,-\frac{1}{2}).$

page 30 line 13 from top:

`change` $(\frac{p+r}{q+s})$ `to` $\binom{p+r}{q+s}$

page 34 caption to Figure 4.6

d, it yields the 1–form $\Omega \cdot d$. `to` v, it yields the 1–form $\Omega \cdot v$.

page 45 line 13 from bottom:

`change` function f `to` function F

page 53 line 6 from bottom:

`change` both as a useful examples `to` both as useful examples page 55 Figure 7.4

the vertical axis in the figure should be labeled w, not z.

page 62 line 10 from top:

`change` $\mapsto (1+2x+y)$ `to` $\mapsto (1+2(x-1)+y)$

page 62 line 15 from top:

`change` $2\sin s\cos s$ `to` $-2\sin s\cos s$

page 62 line 18 from top:

`change` $1+2x+y$ `to` $1+2(x-1)+y$

page 69 line 6 from bottom:

`change` $(f_{,\nu}g+gf_{,\nu})$ `to` $(f_{,\nu}g+fg_{,\nu})$

page 74 line 4 from bottom:

`change` $-uv^3$ `to` $-uv^2$

page 95 line 4 from bottom:

`change` $M\times R$ `to` $M\times \mathbb{R}$

page 103 Figure 15.5.

Figure misses the idea of parallel construction badly.

page 123 line 5 from bottom:

`change` TM_q `to` T_qM Also in Figure 18.2.

page 124 line 13 from top:

`change` $v^\mu + sv^\mu_{,\alpha}w^\alpha\dfrac{\partial}{\partial x^\mu}.$ `to` $(v^\mu + sv^\mu_{,\alpha}w^\alpha)\dfrac{\partial}{\partial x^\mu}.$

page 124 line 15 from top:

`change` $x^\mu + w^\mu + sw^\mu_{,\alpha}x^\alpha.$ `to` $x^\mu + sw^\mu + sw^\mu_{,\alpha}x^\alpha.$

page 124 line 17 from top:

`change` $\mapsto \dfrac{\partial}{\partial x^\alpha} + w^\mu_{,\alpha}\dfrac{\partial}{\partial x^\mu}.$ `to` $\mapsto \dfrac{\partial}{\partial x^\alpha} + sw^\mu_{,\alpha}\dfrac{\partial}{\partial x^\mu}.$

page 124 line 19 from top:

`change` $(v^\mu + w^\mu_{,\alpha}v^\alpha)$ `to` $(v^\mu + sw^\mu_{,\alpha}v^\alpha)$

page 127 line 2 from bottom:

`change` $\pounds_w$ `to` $\pounds_w\alpha$

page 128 line 5 from bottom:

`change` $X\dfrac{\partial}{\partial x}(f\,dx + g\,dy) + f\,dX,$ `to` $X(\dfrac{\partial f}{\partial x}\,dx + \dfrac{\partial g}{\partial x}\,dy) + f\,dX,$

page 145 line 2 from top:

`change` Using equation 18.3, `to` Using equation 18.4,

page 155 line 6 from bottom:

`change` $-\omega\wedge(b\rfloor a\rfloor\nu).$ `to` $+\omega\wedge(b\rfloor a\rfloor\nu).$

page 162

The square should be in the bottom right corner of the lower, diamond–shaped figure.

page 169 line 8 from bottom:

`change` for all 1–forms `to` for all 0–forms. Proof ok.

page 185 line 2 from top:

`change` It has an outer orientation. `to` It has an inner orientation.

page 189 caption to Figure 28.12

`change` 1–form `to` 2–form

page 192 line 10 from top:

`change` $\{\{\alpha \wedge (\beta, \Omega)\}, \{\alpha\}\} =$ `to` $\{\{\alpha \wedge (\beta, \Omega)\} \wedge \{\alpha\}\} =$

page 192 line 1 from bottom:

`change` $\{\psi * \cdot (dy, dy\, dz)\} = +1.$ `to` $\{\psi * \cdot (dy, dx\, dy)\} = +1.$

page 209 line 14 from bottom:

`change` $\frac{\partial}{\partial t} \lrcorner \omega.$ `to` $\frac{\partial}{\partial t} \lrcorner \alpha.$

page 264 line 2 from bottom:

`change` $(d\phi\, dx - du\, dt) =$ `to` $(d\phi\, dx + du\, dt) =$

page 265 line 1 from top:

`change` $\phi\, dx - u\, dt,$ `to` $\phi\, dx + u\, dt,$

page 268 line 8 from top:

`change` Unfortunaely, `to` Unfortunately

page 278 line 2 from bottom:

`change` $\frac{1}{r} \frac{\partial V}{\partial \phi}$ `to` $\frac{1}{r} \frac{\partial V}{\partial \theta}$

page 280 line 1 from bottom:

`change` $-r\pi J$ `to` $-4\pi J$

page 310 line 1 from bottom:

`change` $(d\dot{q} - \dot{q}\, dt)$ `to` $(dq - \dot{q}\, dt)$

page 321 line 5 from top:

`change` $(d\dot{\mathbf{q}} - \dot{\mathbf{q}}\, dt)$ `to` $(d\mathbf{q} - \dot{\mathbf{q}}\, dt)$

page 322 line 17 from top:

`change` equation 15.3 `to` equation 50.3

page 352 line 5 from top:

`change` $= \frac{\partial Z^i}{\partial x^j} dx^j +$ `to` $= \frac{\partial Z^i}{\partial x^j} d\dot{x}^j +$

page 388 Figure 63.1

label y–axis $(\frac{L}{E})^2$

page 393 line 12 from top:

`change` $P =$ `to` $P^2 =$

page 394 line 3 from bottom:

`change` 64.1 an 64.2 `to` 64.1 and 64.2

page 395 line 9 from top:

`change` bound `to` found

page 404 line 15 from top:

`change` $-\!\!\!\Gamma^i_{jk}$ `to` $-\!\!\!\Gamma^i_{kj}$