

ERRATA

Statistical Orbit Determination
Tapley, Schutz, Born
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Chapter 2

p. 61, upper half of page:

The numerator in the equation for D_n reads: 2Π

Should read: 2π

p. 61, upper half of page:

Sentence after D_n uses the term: “siderial day”

Should read: “sidereal day”

p. 69, upper half of page:

Phrase reads: “. index[aut]Schutz, B. E.”

Delete entire phrase.

p. 88, upper half of page:

Phrase reads: “(a, e, i, Ω , ω , M_0). Express the angles in degrees.”

Should read: “(a, e, i, Ω , ω , M_0 or t_p). Express the angles in degrees. Assume $t=0$ for the position and velocity.”

p. 88, lower half of page, Exercise 7:

Phrase reads: “+ mean radius of Earth.)”

Should read: “+ mean equatorial radius of Earth.)”

p. 88, lower half of page, Exercise 9:

Add following: The semimajor axis of the Moon’s orbit is 384,000 km, and semimajor axis for the Sun is 149,599,000 km.

p. 89, lower half of page:

Phrase reads: “Selective Ability”

Should read: “Selective Availability”

Chapter 3

p. 118, upper half of page

Combine first two paragraphs.

Chapter 4

p. 160, upper half of page:

Phrase reads: “(Lutchke et al., 2003)”

Should read: (Luthcke et al., 2003)

p. 200, the line following Eq. (4.7.7):

Phrase reads: “is postmultiplied by the quantity $H_k^T R_k^{-1}$, ...”

Should read: “ is postmultiplied by the quantity $\tilde{H}_k^T R_k^{-1}$, ...”

p. 212, upper half of page:

Phrase reads: “Integrate reference trajectory and state transition matrix from t_{i-1} to t_i .”

Should read: “Integrate reference trajectory and state transition matrix from t_{i-1} to t_i .”

p. 212

Figure 4.8.1 should be labeled Figure 4.7.4

p. 262, lower half of page:

Phrase reads: “Lutchke, S. B., ...)

Should read: “Luthcke, S. B., ...)

p. 280, the matrix for $\bar{P}(t_1)$ in the middle of the page:

Matrix element, row 1, column 1 includes the term t_1

This term in the matrix element should read t_1^2 , so the element should be $4 + 2t_1^2 + \frac{t_1^4}{4}$

p. 280, the matrix for $\bar{P}(t_1)$ in the middle of the page:

Matrix element, row 1, column 2 and also row 2, column 1 includes the term $\frac{t_1^3}{3}$

This term in the matrix element should read $\frac{t_1^3}{2}$

Chapter 5

p. 381, lower half of page:

Phrase reads: Thornton, Thornton, C. L., ...

Should read: Thornton, C. L., ...

Appendix B

p. 477, upper half of page, third bullet on the page

Phrase reads: “If **A** is singular if ...”

Should read: “**A** is singular if ...”

Appendix F

p. 499, middle of page

Equation for $\eta(t)$ has units m/sec

Units should be m/sec²

Appendix H

p. 518, lower half of page, first paragraph in H.2:

Phrase reads: “It is a function of the precession...”

Should read: “It is a function of the precession...”

Bibliography Abbreviations

p. 523

Add the following abbreviations:

AGU American Geophysical Union

AAS American Astronautical Society

Bibliography

p. 526, upper half of page:

Phrase reads: “[11] Born ... and G. Hegler, ...”

Should read: “[11] Born ... and G. Heyler, ...”

p. 526, upper half of page:

Phrase reads: [13] Boucher, C., Z. Altamini, ...”

Should read: [13] Boucher, C., Z. Altamimi, ...”

p. 526, lower half of page:

Phrase reads: “[19] Carlson, ..., pp. 1239-1265, ...”

Should read: “[19] Carlson, ..., pp. 1259-1265, ...”

p. 531, lower half of page:

Phrase reads: “[84] Lutchke, S. B., ...”

Should read: “[84] Luthcke, S. G., ...”

p. 538, lower half of page:

Phrase reads: “Hegler, G., 60”

Should read: “Heyler, G., 60”

p. 539, upper half of page:

Phrase reads: “Lutchke, S. B., ...”

Should read: “Luthcke, S. G., ...”

p. 543, upper half of page:

Phrase reads: “ICESat, 128, ...”

Should read: ICESat (Ice, Cloud and land Elevation Satellite), 128, ...”