Errata for Third Edition

A Practical Introduction to Beam Physics and Particle Accelerators, (Third Edition)
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This document lists corrections to errors, misconceptions, and other problems that were found in the third edition of the book. If you find errors that are not listed here, please email me at sabern@umd.edu.

Book Home Page

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Chapter 5

Section 5.5 (p. 5-10, 11): There are fundamental problems; the section will be completely rewritten for the fourth Edition.

p. 5-10, first line after equation (5.31): Substitute $\mathcal{L}/\varepsilon \gg 1$ for $L/\varepsilon \gg 1$.

p. 5-11, inside square brackets in equation (5.39): Substitute $(2\mathcal{L})^2$ for $(2L)^2$.

p. 5-13, first line above equation (5.43): Substitute "rotated" for "un-rotated".

Chapter 9

p. 9-17 and 9-31 Figure 9.8 and Reference [29]: Correct reference to Fig. 9.8 is Nagaitsev S, Stancari G, Romanov A, Arodzero A, Murokh A, Ruelas M, Lobach I, and Shaftan T 2019 Experimental study of a single electron in a storage ring via undulator radiation, 10th Int. Particle Accelerator Conf., IPAC2019 pp 781.

Appendix A

p. A-4, Table A.3: Computer code homepage or relevant website. New hyperlinks to MAD and TRACE codes.

COMPUTER CODE↓	HOMEPAGE / WEBSITES
MAD-8	https://mad8.web.cern.ch/
MAD-X	https://madx.web.cern.ch/releases/last-rel/
ELEGANT	https://www.aps.anl.gov/Accelerator-Operations-Physics/Software
WINAGILE	https://www.terpconnect.umd.edu/~sabern/PIBPPA-3rdEd/Appendix%20A/
MARYLIE	http://www.physics.umd.edu/dsat/ | http://www.ghga.com/accelsoft/
SPOT[1]	https://terpconnect.umd.edu/~sabern/PIBPPA/Chapter%206/SPOT/
MENV[2]	https://terpconnect.umd.edu/~sabern/PIBPPA/Chapter%206/MenV/
TRACE2D	https://terpconnect.umd.edu/~sabern/SPASE/Appendix%20B/
TRACE3D	https://terpconnect.umd.edu/~sabern/SPASE/Appendix%20B/
WARP	http://warp.lbl.gov/
Optgeo	http://jeanmarie.biansan.free.fr/optgeo.html
Ray Optics	https://play.google.com/store/apps/details?id=com.shakti.rayoptics&hl=en
2D Ray Tracer	http://kodu.ut.ee/~kiisk/mcadapps/ Look for "raytrace.zip"
RayLab	https://itunes.apple.com/us/app/raylab/id710190065?mt=8
TAPAS	https://play.google.com/store/apps/details?id=borland.TAPAs&hl=en
Radiation2D	https://groups.oist.jp/qwmu/software
CDF Player	http://www.wolfram.com/cdf-player/