

Suggested reading list for the summer school

This is a suggest resource for additional reading, it is not a requirement for the school. eBooks are linked from the CERN Library, and the link contains the require EzProxy. When you access the resources via the EzProxy, you need to login with your CERN credentials.

Particle Detectors: Fundamentals and Applications

Hermann Kolanoski, Norbert Wermes

Published: 30 June 2020

Online ISBN: 9780191890710

Print ISBN: 9780198858362

CERN Library link: <https://academic-oup-com.ezproxy.cern.ch/book/43645>

ABSTRACT

The book describes the fundamentals of particle detectors in their different forms as well as their applications, presenting the abundant material as clearly as possible and as deeply as needed for a thorough understanding.

An Introduction to Ultra-Fast Silicon Detectors

Marco Ferrero, Roberta Arcidiacono, Marco Mandurrino, Valentina Sola, Nicolò Cartiglia

Published: 2021

DOI: <https://doi.org/10.1201/9781003131946>

eBook ISBN: 9781003131946

ABSTRACT

The book describes the development of innovative silicon sensors known as ultra-fast silicon detectors for use in the space-time tracking of charge particles.

Pixel Detectors

From Fundamentals to Applications

Leonardo Rossi, Peter Fischer, Tilman Rohe, Norbert Wermes

Published: 2006

ISBN: 3540283331, 9783540283331

CERN Library link: <https://dx-doi-org.ezproxy.cern.ch/10.1007/3-540-28333-1>

ABSTRACT

This book is a general purpose introduction into the fundamental principles of pixel detector technology and semiconductor-based hybrid pixel devices.

Semiconductor Detector Systems

Helmuth Spieler

Published: 25 August 2005

ISBN: 9780191713248

CERN Library link:

<https://ezproxy.cern.ch/login?url=http://dx.doi.org/10.1093/acprof:oso/9780198527848.001.0001>

ABSTRACT

This book presents a discussion of the many facets of highly integrated semiconductor detector systems, covering sensors, signal processing, transistors, circuits, low-noise electronics, and radiation effects.

Reviews By Particle Data Group

Homepage: <https://pdg.lbl.gov>.

Reviews: https://pdg.lbl.gov/2026/reviews/contents_sports.html

Passage of particles through matter

Link: <https://pdg.lbl.gov/2020/reviews/rpp2020-rev-passage-particles-matter.pdf>

Particle detectors at accelerators

Link: <https://pdg.lbl.gov/2026/reviews/rpp2026-rev-particle-detectors-accel.pdf>