

Reading material for PID lecture

List of topics discussed in the lecture:

1. What is particle identification
2. PID techniques
 - a. Time of flight
 - b. dE/dx technique
 - c. Transition radiation
 - d. Cherenkov radiation
3. Ring Imaging Cherenkov detectors
 - a. Principles
 - b. Photon detectors

Chapter 5 in “Detectors for particle radiation” by Konrad Kleinknecht
ISBN: 0-521-35852-3

Review of particle identification by time of flight techniques, W.Klempf
NIM A Volume 433, Issues 1–2, 21 August 1999, Pages 542-553
<https://www.sciencedirect.com/science/article/pii/S016890029900323X>

Particle identification using the dE/dx and the Cherenkov light detection methods in high energy physics, J. Va'vra
IEEE Transactions on Nuclear Science (Volume: 47, Issue: 6, Dec 2000) pages 1764 – 1774
<http://ieeexplore.ieee.org/document/914443/>

Transition radiation detectors, B. Dolgoshein
Volume 326, Issue 3, 10 March 1993, Pages 434-469
<https://www.sciencedirect.com/science/article/pii/016890029390846A>

The DIRC particle identification system for the BaBar experiment
Volume 538, Issues 1–3, 11 February 2005, Pages 281-357
<https://www.sciencedirect.com/science/article/pii/S0168900204020753>

Performance of the LHCb RICH detector at the LHC
<https://doi.org/10.1140/epjc/s10052-013-2431-9>