

Summer Student Online Lecture Programme 2020

Q&A Session on Detectors – 10 July 2020

Speaker: Werner Riegler

Questions in advance

Question(s) #1 (Erdene)

- Does the energy loss determine the particle identification?
- Without energy loss, how could we distinguish the particles?

Question(s) #2 (Wingfung)

- What is meant by a detector channel? Is that a unit of a detector system that gives a single data output?
- In a drift chamber, is a signal generated by the absorption of electrons by a wire, the motion of electrons and ions, or both?
- Does the start of the signal (the drift time) correspond to the absorption of electrons by the wire or the motion of the electrons when they are close enough before being absorbed?
- Also where do the ions go after the avalanche? Do they just stay or do they recombine with electrons somewhere?

Question(s) #3 (Erdene)

- During the bremsstrahlung and pair production, is there energy and momentum conservation?
- How could we distinguish primary and secondary particles in a calorimeter?