

Detector Development for the Upcoming Experiments

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Detectors played major role in many breakthroughs achieved in the history of experimental physics. On the other hand, many challenges in experimental physics necessitated invention of new detectors and instrumentation technologies. Multi-wire proportional counters used in the LEP experiments and large area PMTs used in the Kamiokande experiments are some of the striking examples. Nuclear, particle, cosmic ray and astro physics experiments typically deploy a large number of detector elements. Economical, technical and other operational considerations often call for production of these elements within the country, often involving local industries. Therefore, there is invariably a long drawn dedicated detector development activity associated with setting up of these experiments.

A sample of recent detector development efforts undertaken especially by Indian experimental collaborations will be discussed. Besides, some of the significant advances in detector readout techniques and devices will also be highlighted.