

Moliere radius measurement using a compact prototype of LumiCal in a test set-up

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The FCAL collaboration has performed a design study for luminometers at future electron-positron colliders. Compact sampling calorimeters with precisely positioned silicon sensors and a fast readout will reach the necessary performance even in the presence of background from beamstrahlung and two-photon processes. A prototype calorimeter has been built with special focus on ultra-thin fully instrumented sensor planes to ensure a very small Moliere radius. Results of a measurement in a 5 GeV electron beam on the performance will be presented.

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