

Università degli Studi di Trieste

Dipartimento di Fisica

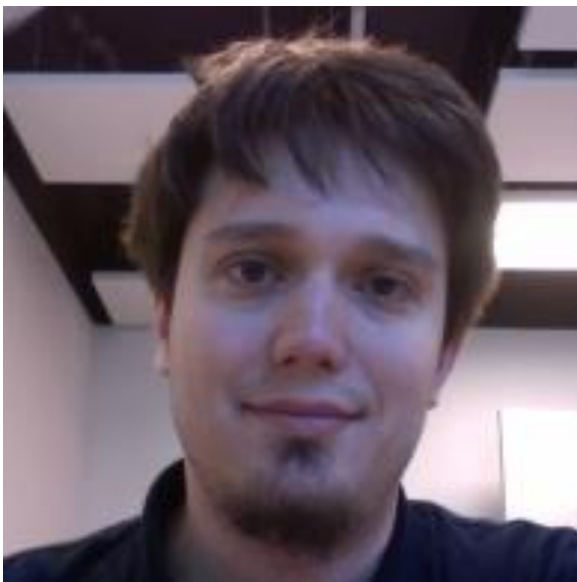
Alumnorum Colloquia

Marco Bomben

Laboratoire de Physique Nucléaire et de Hautes Energies and Université Paris-Diderot - Paris, France

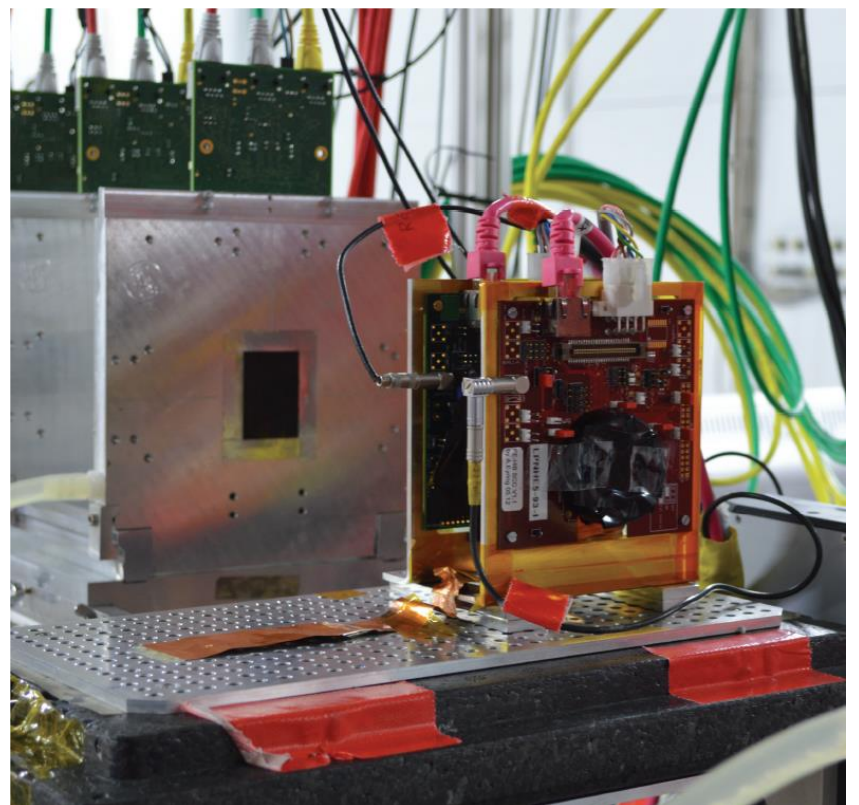
Thursday, May 25, 4.00 PM - Lecture Room A, F building, Physics Dept. - via Valerio, 2 – Trieste

Silicon Sensors for High Luminosity Colliders.



In High Energy Physics experiments heavy particles decay vertices have to be measured with sub-millimeter precision. To cope with this stringent requirement silicon sensors as tracking and vertexing detectors were developed since 1980 in Europe. Silicon detectors are nowadays the standard choice for the innermost layers of experiments at high energy colliders. In this seminar, after a brief introduction to silicon radiation detectors, I will present my work on silicon sensors development in the last 10 years. The presentation will

cover silicon strip and pixel sensors for high luminosity colliders, both e^+e^- and hadronic, from design and simulation to tests on beam. In particular special attention will be devoted to an issue which is very relevant for the planned upgrades of LHC detectors, the radiation induced damage to silicon detectors. To conclude silicon based innovative cooling systems will be presented too, with the goal of more efficient thermal management and at the same time improved tracking performance, for a silicon only tracking system.



Organizzazione a cura di: E. Milotti, E. Vesselli

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Everyone interested in the topic is welcome to attend

Informazioni: seminari@ts.infn.it