

Gianmarco Torilla

Curriculum Vitae

Updated October 2021

Short bio After a classical education, Gianmarco Torilla obtained his Bachelor's degree at the University of Pavia. From the same university he received the Master's degree in Electronic Engineering (curriculum Microelectronics), *summa cum laude*, with the thesis "Characterization of 150 nm CMOS SPAD arrays for a dual layer position sensitive detector". During his master studies, he has joined a curricular internship program, which introduced him to the field of CMOS sensors for charged particles and to the Ondivaghiamo educational project. After the graduation, he won a 6-months research grant to keep working on the aforementioned topics.

Currently, he is a second year student for the Ph.D. program in Microelectronics (XXXVI cycle) and works in the Electronic Instrumentation Laboratory of the University of Pavia. He is also an academic tutor for the courses of "Elettronica 1" and "Circuiti elettrici lineari".

Research In 2020, Gianmarco T. became research fellow for the Italian National Institute of Nuclear Physics (INFN), section of Pavia. His research activity is mainly focused on the development of CMOS SPAD sensors for applications involving experiments in High Energy Physics, such as particle tracking in low radiation level environments and calorimetry, and biomedical imaging. In the framework of the ASAP project (Array of Silicon Avalanche Pixels), he was involved in the characterization, in terms of dark noise and breakdown voltage, of dual layer and single layer 150 nm CMOS SPAD arrays, for which he developed an automatic microcontroller-based measurement setup, and in the design of a chip in a more scaled technology, containing different SPAD arrays, a time-to-digital converter and a set of Silicon Photomultipliers.