



MARIE CURIE EXPERIENCED RESEARCHER FELLOWSHIP

FP7-ITN-2012, 317446, INFIERI: **IN**telligent **F**ast **I**nterconnected and **E**fficient Devices for Frontier Exploitation in **R**esearch and **I**ndustry.

“System design of a Tracking Trigger at L1 for the CMS experiment for the High Luminosity LHC upgrade”

INFN Sezione di Pisa – Pisa, Italy

Position: ER fellowship within the Marie Curie ITN INFIERI Project.

Duration: 2 years.

Contract Start: June 1st 2013.

Application Deadline: The vacancy is open until a suitable candidate has been found.

Project Description

INFN is opening a position for a two years Experienced Researcher (ER) fellowship within the European Union Marie Curie Initial Training Network (ITN) **INFIERI** Project. The ER will work on the system design of a Tracking Trigger at Level-1 for the CMS experiment for the High-Luminosity (HL) LHC Upgrade. She/he will participate in the **simulation design of the data flow and pattern recognition processing in real-time**, making use of the cutting-edge advances offered by high-bandwidth and large data interconnects, VLSI technology and highly embedded computing processors. The work will be carried out in the Sezione di Pisa of INFN; travels to CERN, FNAL and other laboratories are foreseen.

Site Description

The Pisa group is one of the largest participating in the LHC experiment CMS, and has built the current Silicon Strip Tracker. The group has a strong commitment in the new Silicon Pixel detector as well as in the R&D of the new Tracker and Track Trigger of CMS for the HL-LHC. The group is very active in the analyses of the Higgs, heavy flavor and top physics. Our group hosts the largest CMS Italian Tier-2, providing resources for data analysis both locally and as part of the CMS computing Grid.

Profile and Requirements

Applicants must have a Ph.D. in Physics or Electronics Engineering, or have at least four years of full-time equivalent research experience, and in any case no more than five years from the start of their career (counted from the diploma that gives right to embark in a doctoral degree). Experience in High Energy Physics experiments, in areas related to electronics, triggering, advanced computing and/or design would be valued. A fluent English level, team working and ability and availability to travel are essential. In order to fulfill the eligibility criteria of the Marie Curie ITN at the date of recruitment, applicants must not have resided or carried out their main activity in Italy for more than 12 months for the 3 years immediately prior to their recruitment. Italian candidates can apply if they have resided in another country for more than 3 years of the last 4 years.

Application

Application must contain: letter of motivation, detailed curriculum vitae, transcripts of B.Sc./M.Sc./Ph.D. degrees, and three reference letters. To apply, please send the required documents with subject “ER INFIERI” to: Fabrizio.Palla@pi.infn.it

For more information on the INFIERI ITN

<http://www.apc.univ-paris7.fr/APC/Projets/INFIERI>