

POST-DOCTORAL FELLOWSHIPS IN MEDICAL PHYSICS

The University of Pisa (UNIFI) is an Italian public research university founded in Pisa, Italy, in 1343. It features 20 Departments and hosts about 57000 students. The Department of Physics “E. Fermi” works closely with the National Institute for Nuclear Physics (INFN). Its research is focused on particle physics, astroparticle physics, nuclear physics, theoretical physics, structure of matter and interdisciplinary research mainly dedicated to biological and biomedical applications. The Department has been active for more than two decades in PET imaging with multiple projects ranging from the development of detectors to complete systems for preclinical imaging, dose monitoring in hadron therapy and dedicated multimodal clinical systems.

The Functional Imaging and Instrumentation Group of the Department offers three positions for research activity in Medical Physics. The group is focusing on different PET-related technologies ranging from detector development to image reconstruction and data analysis using the latest breakthroughs in artificial intelligence and high-performance computing.

One-year INFN position (“assegno di ricerca”) in PET AI image analysis for treatment monitoring in hadron therapy.

The candidate must have a master's degree in physics, electrical engineering or related fields and a PhD or a scientific curriculum that demonstrates the capability to carry out research activities. Experience in AI and deep learning design constitutes a preferred title.

One-year UNIFI position (“assegno di ricerca”) in AI-enhanced PET detector development. The candidate must have a master's degree in physics, electrical engineering or related fields and a PhD or a scientific curriculum that demonstrates the capability to carry out research activities. Experience in electrical engineering and FPGA design constitutes a preferred title.

Three-year UNIFI fixed-term researcher position (“RTD-A”) in Applied Physics for research in AI-based PET image reconstruction and image analysis. The candidate must have a master's degree in physics, electrical engineering or related fields and a PhD. Experience with PET imaging constitutes a preferred title.

Applicants to any of the positions above should be highly motivated and creative, with an exceptional track record and have a strong background in mathematics, physics, and computer science. Applicants should be autonomous and interested in working in an interdisciplinary environment at the interface of imaging physics, biomedical engineering, and medicine. They should be interested in new technologies such as deep learning and high-performance computing platforms.

The successful applicants will be encouraged to develop independent research ideas and prepare proposals for research funds, fellowships, etc.

To apply, please send a CV, a short statement of research interests and any reference letters to Prof. Giancarlo Sportelli <giancarlo.sportelli@unipi.it>. Starting dates for the positions above will be in the second half of 2022.