#### PERSONAL INFORMATION

## Nicola Belcari



(work) Dipartimento di Fisica "E. Fermi", Largo B. Pontecorvo, 3 – 56127 Pisa,

Enterprise	University	EPR		
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist /		
I Management Ecver	E i dii protessor	First Researcher and 2nd level Technologist		
☐ Mid-Management Level		☐ Level III Researcher and Technologist		
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII	☐ Researcher and Technologist of IV, V, VI and VII		
□ Litiployee / Worker level	level / Technical collaborator	level / Technical collaborator		

#### **WORK EXPERIENCE**

## 01/11/2016 - present Associate Professor (SSD FIS/07)

Università di PISA - Dipartimento di FISICA "E.Fermi"

Medical physics / Molecular imaging

01/11/2010 - 30/10/2016

### Researcher

Università di PISA - Dipartimento di FISICA "E.Fermi"

Medical physics / Molecular imaging

01/02/2007 - 31/01/2010

## Researcher (art. 1 del D.Lgs 368/01) (Ricercatore in Formazione)

Università di PISA - Dipartimento di FISICA "E.Fermi"

Medical physics / Molecular imaging

## **EDUCATION AND TRAINING**

December 2003

## PhD in Applied Physics

Scuola di Dottorato "Galileo Galilei" – Università di Pisa, Pisa, Italy

Thesis title: Development of a Positron Emission Mammography scanner for breast cancer detection

March 1999

# Laurea in Physics

Università degli Studi di Pisa, Facoltà di Scienze Matematiche, Fisiche e Naturali, Pisa, Italy

Thesis title: Stati Collettivi e Pairing Isoscalare nei Nuclei con N  $\approx$  Z Studiati con lo Spettrometro  $\gamma$ **EUROBALL** 

**PERSONAL SKILLS** 

Mother tongue(s)

Italian

Other language(s)

English (fluent)

LEADERSHIP IN INTERNATIONAL PROJECTS (last 5 years)

Project UTOFPET: Ultra-Time-of-Flight Positron Emission Tomography

Funded by EU (ERANET-Cofund PhotonicSensing Consortium)

Years 2018-2021

Role Principal Investigator

Project TRIMAGE: A combined trimodality (PET/MR/EEG)

imaging tool for schizophrenia

Funded by European Community - FP7 Framework Program

Years 2013-2018

Role Work package leader

LEADERSHIP IN NATIONAL PROJECTS (last 5 years)

Project JRU Multi-sited Multi-Modal Molecular Imaging (MMMI)

Funded by MIUR (FOE) Years 2015-present

Role Local responsible for the Physics Department and member of the General Assembly of the JRU

Job-related skills His activity has been mainly focused on the development of new radiation detectors and their

application to in-vivo molecular imaging. These applications have been focused on the construction of positron emission tomography (PET) systems dedicated to pre-clinical imaging (PET/CT), brain imaging (PET/MR) and monitoring of hadrontherapy treatments. One of his major research achievements is the development of the PET component of the TRIMAGE PET/MR/EEG brain scanner which will be installed at the AOUP Cisanello in Pisa in 2021 under his responsibility.

Digital skills Radiation detectors and data acquisition electronics

Other skills Technology transfer. He is responsible of 2 contracts for the development of small animal PET/CT

scanners now commercially distributed. He holds three patents in the field of PET & CT imaging.

**ADDITIONAL INFORMATION** 

Publications >150 (H-index = 25)

Publications (peer-reviewed, selected as being relevant to the proposed project, last 5 years)

Monte Carlo Characterization of the Trimage Brain PET System

L Masturzo, P Carra, PA Erba, M Morrocchi, A Pilleri, G Sportelli, N Belcari

Journal of Imaging 8 (2), 21 (2022)

Design and Detector Performance of the PET Component of the TRIMAGE PET/MR/EEG Scanner

Camarlinghi N, Sportelli G, Del Guerra A, Belcari N Physics in Medicine and Biology 63 (19) (2018)

Cerenkov luminescence imaging: physics principles and potential applications in biomedical sciences

Clarrochi E, Belcari N

EJNMMI Physics 4 (11) (2017)

Medical applications of silicon photomultipliers

Bisogni MG; Del Guerra A; Belcari N

Nucl. Instr. Meth. Phys. Res. A 926 118-128 (2019)

NEMA NU-4 performance evaluation of the IRIS PET/CT preclinical scanner

N Belcari et al.

IEEE Transactions on Radiation and Plasma Medical Sciences 1 (4), 301-309 (2017)