

Call for applications for the award of 1 Research Contract pursuant to art. 22 of Law no. 240/2010, in the Scientific-Disciplinary Sector PHYS-06/A – Physics for the Life Sciences, the Environment and Cultural Heritage, at the facilities of the Research Unit of Nonlinear Physics and Mathematical Models and the Departmental Faculty of Medicine, Surgery and Dentistry of Università Campus Bio-Medico of Rome.

Competition code: CDR/01_26

Number of Research Contracts	1
Departmental Faculty/Research Unit of affiliation	Departmental Faculty of Medicine, Surgery and Dentistry Research Unit of Nonlinear Physics and Mathematical Models
Place of activity	Research Unit of Nonlinear Physics and Mathematical Models
Scientific Disciplinary Group	02/PHYS-06 – Physics for the Life Sciences, the Environment and Cultural Heritage, Physics Education and History of Physics
Scientific-Disciplinary Sector	PHYS-06/A – Physics for the Life Sciences, the Environment and Cultural Heritage
Project title	Biophysical Modelling of Excitable Cells and Tissues
Description of the research project	Development of multiphysics and multiscale models for the study of the activity of excitable cells and tissues, with particular emphasis on cardiac tissue and neurons. Parameter optimization of the developed models for the reproduction of experimental data. Investigation of pathophysiological conditions in cardiac electrodynamics through modelling at the cellular and tissue levels. Study of neuronal networks and the electrophysiological mechanisms of neurons using detailed biophysical models.
Scientific Supervisor	Alessandro Loppini
Maximum number of publications	10
Language knowledge and skills	English – CEFR Level B2
Date, time and place of interview	31 July 2026, 9:30 a.m. Remote candidates on Microsoft platform