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[CfPo] PH.D. POSITIONS AVAILABLE AT THE UNIVERSITY OF GENOA

Ph.D. positions are available by the group directed by Alberto Diaspro within the SeeLife (PNRR CUP B53C22001810006) project founded by the European Union within the Eurobioimaging research network. The training and research activities will take place at the Department of Excellence in Physics of the University of Genoa and linked with the Institute of Biophysics of the National Research Council (CNR) and with the Research group in Nanoscopy of the Italian Institute of Technology (IIT) operating at the Great Campus of Erzelli. Two research programs are available: (i) "Development of a super-resolution multimodal optical microscopy approach for the study of cellular systems at the nanoscale" and (ii) "Optimizing precision localization at the molecular level with minimal impact on lighting using the MINFLUX approach".

For information: Prof. Alberto Diaspro <u>diaspro@fisica.unige.it</u> and <u>https://unige.it/en/usg/en/phd-programmes</u>

[CfPo] 1 research position available, University of Florence

1-year contract (extendable), Full Time, Medical Physics group, starting date: February 1st, 2022











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Degree in Biology or Biotechnology, Development and study of:in vitro biofilm models, light - biofilm interaction, in vitro photo-killing efficacy (E. coli, P. aeruginosa, S. aureus models). Deadline for applications: January 15th, 2023. For further information write to Giovanni Romano giovanni.romano@unifi.it https://light4lungs.eu/

[CfPo] DiasproLab Call - Researcher position (36 months) on "Correlative bioimaging using advanced optical microscopy methods at the nanoscale"

Deadline 3/12/2022 12:00:00 ora italiana / italian time

European framework: Eurobioimaging network - SEELIFE project.

Next Generation EU - PNRR Infrastructure

https://www.eurobioimaging.eu/nodes/advanced-light-microscopy-italian-node Settore concorsuale: 02/D1 - FISICA APPLICATA, DIDATTICA E STORIA DELLA FISICA

Settore scientifico disciplinare: FIS/07 – FISICA APPLICATA (A BENI CULTURALI, AMBIENTALI, BIOLOGIA E MEDICINA)

Titolo del progetto: PNRR Missione 4, Componente 2, Investimento 3.1 "Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione" - Correlative bioimaging using advanced optical microscopy methods at the nanoscale.

Regime di impegno a tempo pieno.

Lingua straniera di cui è richiesta la conoscenza: inglese.

Numero massimo di pubblicazioni che ciascun candidato può presentare: 12 (inclusa l'eventuale tesi di dottorato o titolo equivalente).

Impegno scientifico: il ricercatore/la ricercatrice dovrà svolgere ricerca nel campo della biofisica alla nanoscala con sistemi per nanoscopia ottica in fluorescenza orientati all'imaging molecolare, sistemi a singola molecola di tipo elettrofisiologico e ottico, metodi di nanoscopia correlativa a interazione di luce e di forza e integrazione di metodi di super risoluzione in fluorescenza per localizzazione e tracking di singole molecole in regime lineare e non lineare.

Impegno didattico: attività di didattica, didattica integrativa e servizio agli studenti.

Sedi in cui il vincitore sarà chiamato a lavorare: Dipartimento di Fisica - L308/L303.

TO APPLY:











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https://concorsi.unige.it/home/procedure/3653;jsessionid=273AFA45BAD69FD4DC8EE4F22CFE89DB

Info: diaspro@fisica.unige.iit

Mandatory subject: DiasproLab-SEELIFE-CALL

[CfPo] Post-doctoral position on LLPS Structural Analysis in Montpellier (Center for Structural Biology)

Our group at the Center for Structural Biology (CBS) at the University of Montpellier (South of France) offers one open Postdoc position (18 months) to work on lipid-lipid phase separation (LLPS), a new paradigm in cell compartmentalization, using atomic force microscopy (AFM) including high-speed modality and correlative AFM-fluorescence microscopy. We are an international team at an interdisciplinary research center with excellent in-house access to state-of-the-art biophysics infrastructure and biochemistry and cell culture facilities. Moreover, several groups at the CBS are working on LLPS, which fosters creativity and collaborations.

The project is highly interdisciplinary, at the interface of biophysics, cell biology and biochemistry. Therefore, successful applicants are expected to have training and research experience in physics/biophysics, especially advanced skills in AFM. Previous experience in fluorescence imaging (confocal/TIRF/Super Resolution/FLIM), Optics as well as biochemistry, cell biology and computation (e.g. Python) skills will be positively considered. The candidates should have a solid publication record (at least one first author paper). Applicants are expected to have defended their PhD thesis within the last 2 years (< 2 years postdoctoral experience).

The contract will be within the framework of 1 ANR French grant. Interested applicants should send their CV, cover letter and references to Pierre-**Emmanuel** Milhiet (pem@cbs.cnrs.fr) and Christine Doucet (christine.doucet@cbs.cnrs.fr) and apply using the following link https://emploi.cnrs.fr/Offres/CDD/UMR5048-FLOLEP-044/Default.aspx

[WS] Biophysics@Rome











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Biophysics@Rome

Consiglio Nazionale delle Ricerche (Piazzale Aldo Moro, 7 – Roma) <u>April 19-20, 2023</u> www.biophysicsatrome.org

"Research on the path to sustainability"

The biggest challenge in today's world, as identified by the UN Sustainable Development Agenda, is to protect the Earth's environment and improve the lives of its inhabitants, through sustainable actions and choices. Such a global task can only be achieved through scientific contributions from all areas of knowledge, aimed at combating climate change, ensuring healthy lives, and promoting human well-being.

In this perspective, the Tech4Bio group has been engaged for many years in the fields of Biomedicine and Biophysics, for the development of innovative strategies in the areas of biosensors, nanotechnologies, and regenerative medicine.

The Tech4bio group is the promoter of Biophysics@Rome, a biennial symposium held with the patronage of SIBPA (Italian Society of Pure and Applied Biophysics), that brings together scientists interested in the fields of biophysics and technologies for biology and medicine. These periodic conferences aim to foster the creation of a fertile ground for the emergence of "interdisciplinary people", putting together skills and expertise coming from different intersecting fields,

We are now pleased to announce the fifth edition of the Biophysics@Rome Conference, which will be held on April 19th -20th, 2023, in Rome. The aim of this edition is to provide an overview of the various contributions provided by biophysics toward a sustainable world, ranging from molecular and cellular studies of fundamental biological processes to applications in environmental monitoring, tissue engineering, biomaterials, biosensors, and innovative devices in the therapeutic and diagnostic fields.

Topics

Molecular Biophysics
Cellular Biophysics
Microscopy and Spectroscopy
Computational Biophysics
Bioinformatics and System Biology
Biochemistry
Medical Physics
Complexity
Quantum Effects

Sensors and Devices Microfluidics Labs-on-Chips Regenerative Medicine Novel Materials Laser Processing Food Characterization Artificial Intelligence Digital Twin



info@biophysicsatrome.org

[CfPo] 3 postdoc at the Centre de Biologie Structurale, Montpellier











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Our team at the Centre de Biologie Structurale in Montpellier, France, is looking for three postdoctoral researchers in the field of atomic force microscopy, single molecule fluorescence spectroscopy (smFRET) and DNA origami for structural biology. More info & application process:

https://integrativebiophysicsofmembranes.wordpress.com/2022/11/28/now-hiring/

E. Margeat, Directeur de Recherche CNRS, Team "Integrative Biophysics of Membranes" Centre de Biochimie Structurale, Montpellier, France

[CfPo] 2 postdoc at CNRS, Paris

Two postdoc positions available soon in Fabio Sterpone's group in Paris at CNRS. The first project concerns the application of multi-scale simulations to the study of membranelles molecular condensates in the cytoplasm. We are especially interested in the investigation of fluid flow perturbation on the molecular structure of the condensates. The work will be done in collaboration with the groups of M. Feing and L. Lapidus at the Michigan State University (US). The second project concerns the emergence of allostery as regulatory mechanism in enzymes. We will apply molecular dynamics and modelling to support the interpretation of experiments from P Shanda (ISTA, Vienna) and D. Madern (IBS, Grenoble) (NMR and biochemical easy).

contact: fabio.sterpone@ibpc.fr

https://sites.google.com/site/sterponefabio/home

[CfPo] 1 postdoc at Frankfurt Goethe University

Postdoctoral fellow position: "Simulation-based inference of single-particle tracking microscopy."

This project is part of the SCALE Cluster of Excellence initiative of Frankfurt Goethe University. It will be carried out in the Theoretical and Computational Biophysics [CovinoLab] led by Roberto Covino at the Frankfurt Institute for Advanced Studies [FIAS], in a strong partnership with the Single Molecule Biophysics group led by Mike Heilemann at Goethe University [HeilemannLab]. The project focuses on developing and applying an innovative computational framework that integrates artificial intelligence and physics-based computer simulations to extract reduced quantitative models from super-resolution single-particle tracking experiments of plasma membrane receptor assembly. The self-











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assembly of receptors in cellular membranes is a fundamental process in biology. Understanding its biophysics and biological implications requires groundbreaking approaches, which you will advance. You will be embedded in a highly interdisciplinary environment and interact intensely with experimental collaborators to develop new quantitative models of fundamental biological systems.

Ideally, you have:

- An excellent PhD in computational sciences (physics, biophysics, mathematics, computer science, or theoretical chemistry).
- Excellent communication skills and working proficiency in English.
- A strong interest in interdisciplinary research, method development, and bridging theory with experiments.
- A strong experience in programming (Python, etc.) and machine learning (PyTorch, Tensorflow).

We offer:

- A highly inspiring work environment.
- Excellent research infrastructure and dedicated mentoring.
- A very competitive salary and social benefits.
- Excellent opportunities for training and career development.

Applications may be submitted until January 15, 2023 but interviews will be scheduled as soon as possible.

Required documents:

- A motivation letter stressing why you want to do a postdoc in the field and our lab.
- A detailed curriculum vitae containing academic qualifications, research experiences, skills, and a publication list where you highlight your contribution.
- Name and contact information of at least two references.

Please send all documents as a single pdf file to [covino@fias.uni-frankfurt.de]. For any further questions, please contact Dr. Roberto Covino [covino@fias.uni-frankfurt.de]

[CfPo] Open positions at the Max Planck Institute for Multidisciplinary Sciences (MPI-NAT), Gottingen, Germany, Department of Theoretical and Computational Biophysics (Helmut Grubmüller)

Research Group Computational Biomolecular Dynamics (Bert de Groot)











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We are looking for PhD Students or Postdocs interested in contributing to the project on "Theory and Algorithms for Structure Determination from Ultrafast Single Molecule X-FEL Diffraction and Fluctuation Correlation X-Ray Scattering Experiments" in the Grubmüller group.

Link to online announcement: https://www.mpinat.mpg.de/4209315/45-22?c=645962

We have open Postdoc positions in the de Groot group addressing "Free Energy Calculations" in the following areas:

- -binding pose assessment for drug development in collaboration with pharmaceutical industry;
- -development of the open source package PMX, as part of the EU Centre of Excellence "BioExcel"
- -addressing sampling and convergence challenges

Link to online announcement: https://www.mpinat.mpg.de/64-22?c=645962

[CfPo] Ph.D. position in experimental and computational biochemistry, Heidelberg University

Project Leader: Dr. Fabio Lolicato

Deadline: 10/12/2022

Location: Biochemistry Center, Heidelberg University, Im Neuenheimer Feld 328

69120 Heidelberg, Germany

Description:

We have one open Ph.D. position to work on the structure-function relationship of membrane-inserted FGF2 oligomers using multiscale molecular dynamics simulations guided by experimental data. This project, with Prof. Walter Nickel, involves collaborations with various experimental groups and techniques (cryo-EM, mass spectrometry, AFM). We are looking for enthusiastic students with a prime interest in advanced molecular dynamics simulation techniques and experimental studies at the interface of biochemistry, biophysics, and structural biology. We offer a friendly and productive interdisciplinary work atmosphere and state-of-the-art equipment. The Ph.D. student will be part of the local Ph.D. program (HBIGS), which offers interdisciplinary practical training, participation at scientific conferences, mentoring by a thesis committee of experts in the field, and a highly stimulating international research environment. The starting date of the position is January 2023.











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The candidates interested in a Ph.D. position (3 years - E13 65%) should submit their cover letter and CV. Applications and inquiries should be sent directly to fabio.lolicato@bzh.uni-heidelberg.de







