

*DOCTORAL INPhINIT FELLOWSHIPS PROGRAMME – INCOMING FRAME
INFORMATION CALL 2022*

PhD POSITION OFFER FORM

Position

1. Project Title/ Job Position title: **Data Science**
2. Area of Knowledge: **Physical Sciences, Mathematics and Engineering**
3. Group of disciplines: **Theoretical and Applied Mathematics, Computer Sciences**
4. Research project/ Research Group description (max. 2.000 characters)

Specific project thesis:

- Data Science for Climate Change

Data science has a key role to play in climate change. Data science techniques are used to study the effects of climate change on land use and restoration, marine biology, food systems, patterns of change in vector borne diseases, and other climate-related issues. Besides, statistical methods contribute to help researchers understand the uncertainties inherent in data to identify strategies and to evaluate the decision making-processes. The goal of the research project is to develop and validate new methods and tools of the growing field of data science and apply them to issues relevant to climate change and the environment. From machine learning to data visualization, statistical models and methods, uncertainty quantification, mathematical and geophysical simulations, to high-performance computing and software development. The PhD candidate will be part of the Applied Statistics Research line at BCAM, the aim of the group is to create innovative statistical models, inference methods, computational algorithms and visualization tools for analysis complex data sets from different and diverse sources. The research team is formed by 3 senior researchers, 4 postdocs and 4 PhD students developing their research at the center and in collaboration with other national and international institutions. The project will be led by Dr. Dae-Jin Lee, research line leader, expert in statistical methods, non-parametric regression, spatial and spatio-temporal modelling in environmental sciences and Biostatistics.

5. Job position description (max. 2.000 characters)

The successful candidate will be working on developing new methods for forecasting climatic variables, prediction of soil textures under climate change scenarios using statistical techniques and predictive models (including machine learning algorithms).

As an early-stage researcher, he/she will part of multidisciplinary teams, in an excellent research environment at BCAM. During the PhD project, the successful candidate will collaborate with researchers at international institutions.

Group Leader

1. Title: Prof.
2. Full name: José Antonio Lozano
3. Email: jlozano@bcamath.org
4. Research project/ Research Group website (Url):
<http://www.bcamath.org/en/research/lines/area/DS>
5. Website description: BCAM website with all the information on the group

Additional website (optional, max. 5 websites)

- Combinatorial Optimization: <http://www.bcamath.org/en/research/lines/HO>
- Applied Statistics: <http://www.bcamath.org/en/research/lines/AS>
- Machine Learning: <http://www.bcamath.org/en/research/lines/ML>

INPhINIT Offer, eligibility requirements, evaluation and selection process

Incoming:

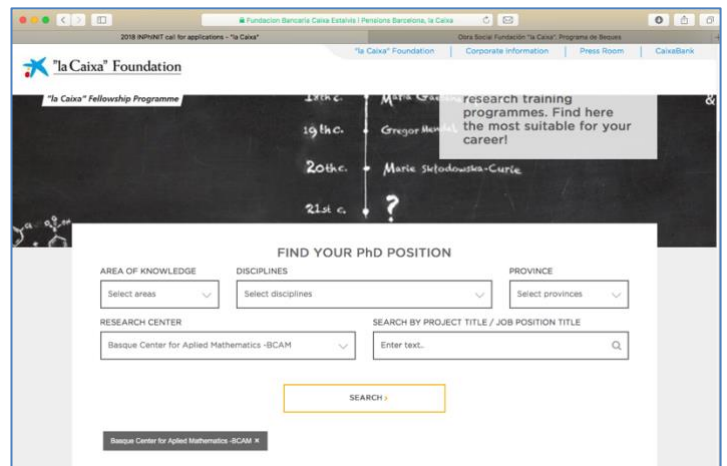
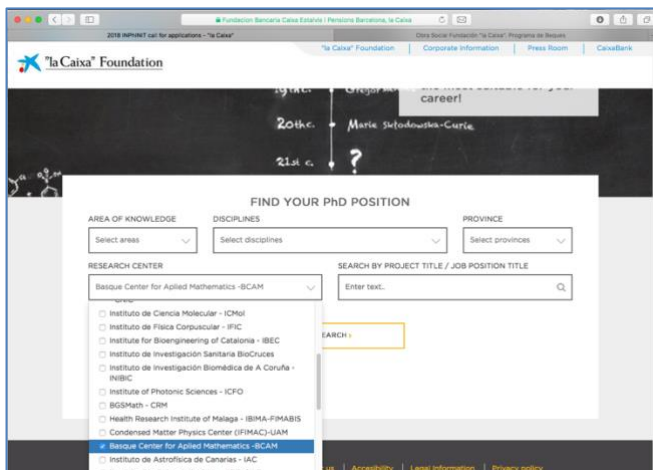
<https://fundacionlacaixa.org/es/becas-doctorado-inphinit-incoming>

Retaining:

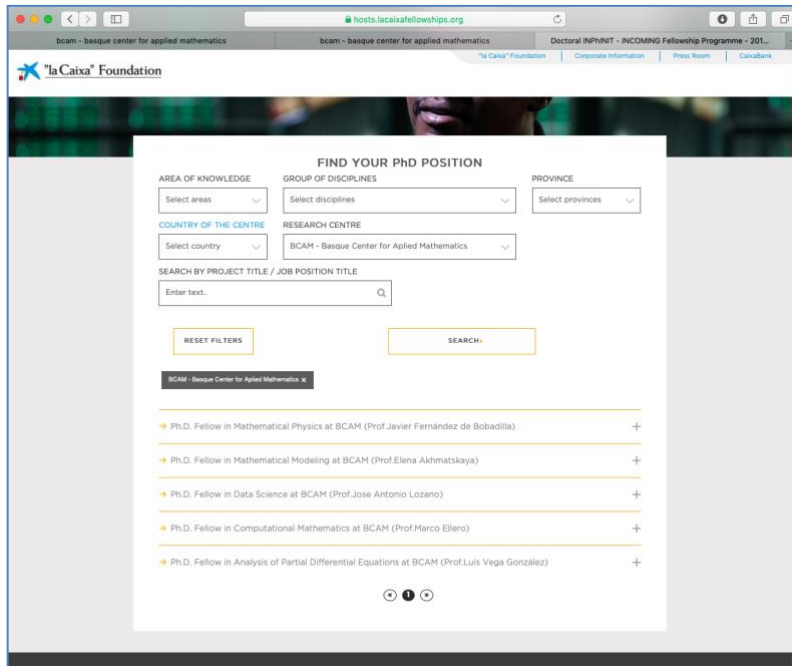
<https://fundacionlacaixa.org/es/becas-doctorado-inphinit-retaining>

How to Apply:

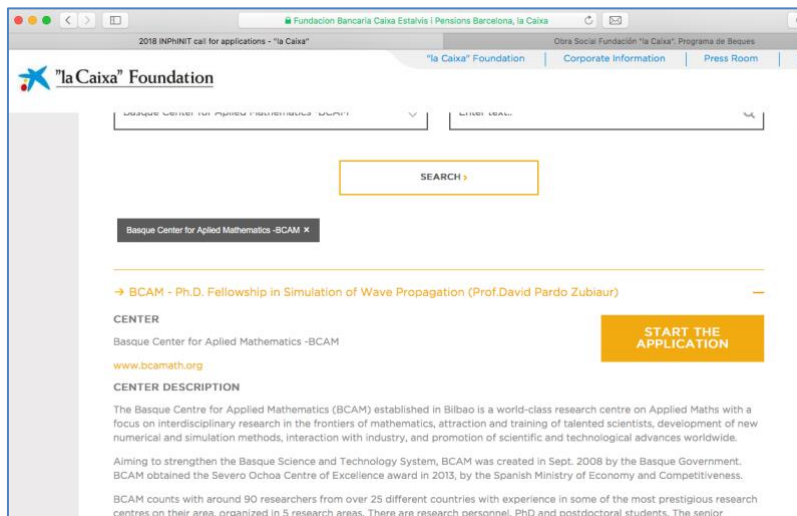
1. Click in <https://hosts.lacaixafellowships.org/finder>, click in RESEARCH CENTRE and choose "Basque Center for Applied Mathematics - BCAM"



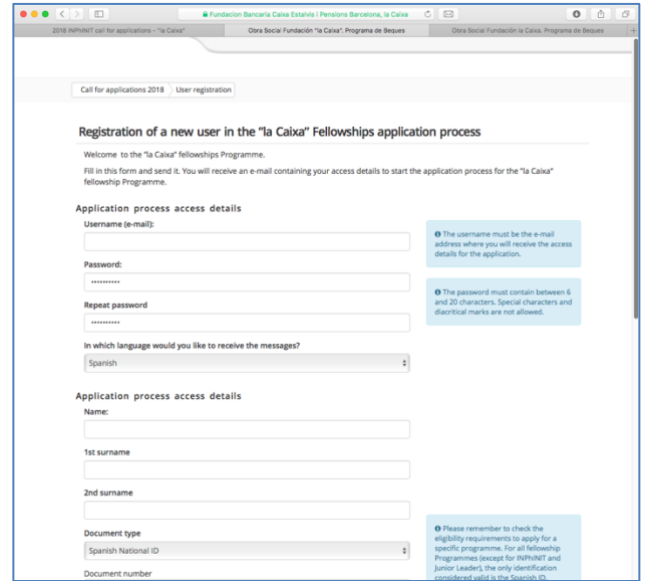
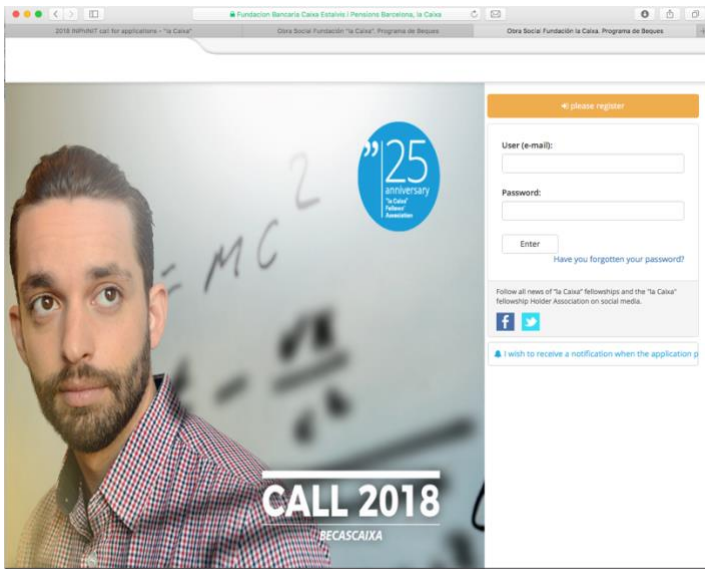
2. Click in "SEARCH" and the displayable will list the positions offered



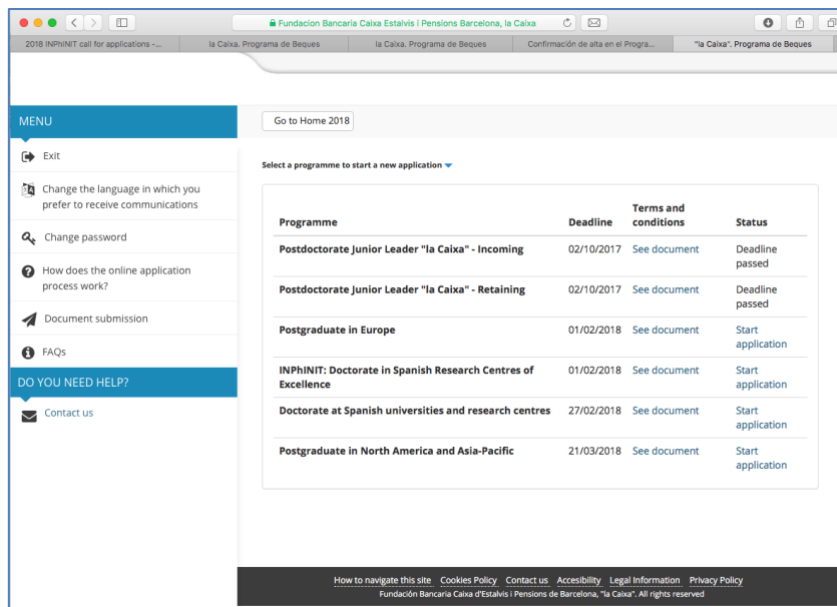
3. Click in the selected PhD Offer and click in "START THE APPLICATION"



- The system will open a new window with the application website <https://www.lacaixafellowships.org/index.aspx>. Click in "Please register" for new applicants.



- After the registration, the system will send to you the confirmation email and the link to access into the system. Now you are in the position to access into the application system. Please choose INPhINIT: Doctorate in Spanish Research Centre of Excellence.



- Now you are in the position to fill the application form, upload the required documents and choose the project thesis. To choose the project thesis, click in "Studies to be Pursued", choose the centre and the position.

2018 INPhINIT call for applications - "la Caixa" | Fundación la Caixa, Programa de Becas | Fundación la Caixa, Programa de Becas | Confirmación de alta en el Programa de Bec. | Fundación la Caixa, Programa de Becas

Miguel A. Benitez | Start of application period 2018 | Miguel A. Benitez | Application 77574

Start | Documents | Personal data | **Studies to be pursued** | Reference letters | CV | Statement of purpose

Highlight the mandatory fields that I have not completed yet.

Information about the prospective research centre

Field of study:
Choose a field

Subfield of study:
[Empty dropdown]

Chosen centre:
Basque Center for Applied Mathematics -BCAM

Position:
 Traducción EdgePosition
 BCAM - Ph.D. Fellow in Heuristic Optimization: Estimation of Distribution Algorithms for Combinatorial Optimization Problems with Constraints
 BCAM - Ph.D. Fellow in Machine Learning: Data mining of stream time series
 BCAM - Ph.D. Fellow in Machine Learning: Rare event prediction with machine learning method
 BCAM - Ph.D. Fellow in Statistical modelling of high-throughput phenotypic data in plant breeding
 BCAM - Ph.D. Fellow in the Mathematical Design of Complex Materials
 BCAM - Ph.D. Fellow in Wildlife Propagation Modeling
 BCAM - Ph.D. Fellowship in Applied and Computational Mathematics
 BCAM - Ph.D. Fellowship in Simulation of Wave Propagation
 BCAM - Ph.D. Fellowship in Sparse array regression and variable selection in high-dimensional problems
 BCAM - Ph.D. Fellow in Mathematical Neuroscience: Controlling Neurons in Real-Time
 BCAM - Ph.D. Fellow in Mathematical Neuroscience: Modeling and Unravelling Complex Neuron Communication
 Ph.D. Fellowship in Applied Mathematics - Applied Analysis
 Ph.D. Fellowship in Applied Mathematics - Applied Statistics (1/2)
 Ph.D. Fellowship in Applied Mathematics - Applied Statistics (2/2)
 Ph.D. Fellowship in Applied Mathematics - CFD Computational Technology
 Ph.D. Fellowship in Applied Mathematics - Machine Learning
 Ph.D. Fellowship in Applied Mathematics - Mathematical Modeling in Bioscience
 Ph.D. Fellowship in Applied Mathematics - Modelling and Simulation in Life and Materials Sciences
 Ph.D. Fellowship in Applied Mathematics - Quantum Mechanics
 Ph.D. Fellowship in Applied Mathematics - Simulation of Wave Propagation
 Ph.D. Fellowship in Mathematics - Harmonic Analysis (inverse problems)
 Ph.D. Fellowship in Mathematics - Singularity Theory and Algebraic Geometry

Remember to write in English

On the contact sign date, I must accredit that I am able to enrol in the first year of a doctoral [Empty dropdown] immediately prior to the publication date of the final list of selected candidates (29 may 2018).