

Postdoctoral position in Metaheuristics for Multiobjective Optimization.

Job Offer

Topics:

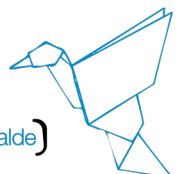
The Basque Center for Applied Mathematics is launching one Postdoctoral position of 2 years, to work on Combinatorial optimization problems, funded by Severo Ochoa.

The use of bio-inspired metaheuristics (particularly evolutionary algorithms) to solve multi-objective optimization problems has gained increased popularity within the last 20 years. However, one of the areas in which research has been fairly limited is the use of genetic programming to generate components or mechanisms of multi-objective evolutionary algorithms. The main focus of this project will be the use of genetic programming for the development of new density estimators and new performance indicators for multi-objective evolutionary algorithms.

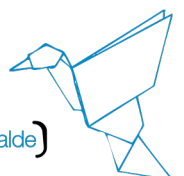
We are looking for a promising young researcher, who has the PhD completed before the contract starts. PhD degree in mathematics, computer science, or related area.

The candidate will develop new components for multi-objective evolutionary algorithms using genetic programming and similar approaches. Such components will be validated using standard test problems and performance measures available in the specialized literature. Therefore, the candidate is expected to have prior experience in algorithmic and/or theoretical and practical aspects of evolutionary multi-objective optimization. So, the candidate must have to set up a genetic programming environment as a prior step to develop his/her research.

The position is for a postdoctoral contract of two years at the Basque Center of Applied Mathematics, under the supervision of Dr Carlos A. Coello Coello.

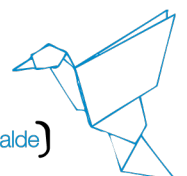


PIs in charge:	Dr. Carlos A. Coello Coello.
Salary and conditions:	<p>The gross annual salary of the Fellowship will be: 29.994€ - 36.420€ according to experience.</p> <p><i>It will then be on your own responsibility to make your yearly income declaration at the Bizkaia Treasury Agency.</i></p> <p>Additionally, we offer a moving allowance up to 2.000€.</p> <p>Should the researcher have a family at the time of recruitment:</p> <ol style="list-style-type: none"> 1. 2.000€ gross in a single payment will be offered (you must be married-official register or with children and the certificate to prove it must be sent). 2. 1.200€ gross per year/per child (up to 2 children) will be offered (the certificate to prove it must be sent). <p><i>Free access to the Public Health System in Spain is provided to all employees.</i></p>
Nº Positions offered:	1
Contract and offer:	2 years (the second year's contract is conditioned by a positive performance evaluation of the first year)
Deadline:	April 30th, 2024, 14:00 CET (UTC+1)
How to apply:	Applications must be submitted on-line at: https://joboffers.bcamath.org



Scientific Profile Requested	
Requirements:	<ul style="list-style-type: none"> Promising young researchers. Applicants must have their PhD completed before the contract starts. PhD degree preferable in Computer Science and related fields.
Skills and track-record:	<ul style="list-style-type: none"> Good interpersonal skills. A proven track record in quality research, as evidenced by research publications in top scientific journals and conferences in computer science (particularly in specialized journals and conferences). Demonstrated ability to work independently and as part of a collaborative research team. Ability to present and publish research outcomes in spoken (talks) and written (papers) form. Fluency in spoken and written English. High level of spoken and written English.
Scientific Profile:	<p>In the selection procedure we will appreciate:</p> <ul style="list-style-type: none"> Strong background in computer science, multiobjective optimization and metaheuristics. Good knowledge about one or more of the following topics (all of them within evolutionary multi-objective optimization): techniques to maintain diversity, multi-objective evolutionary algorithms, performance indicators. Knowledge about genetic programming is desirable, but not mandatory. Good programming skills in C/C++ under Linux.

Application and Selection Process	
Formal Requirements:	<p>The selected candidate must have applied before the application deadline online at the webpage: https://joboffers.bcamath.org</p> <p>The candidates that do not fulfil the mandatory requirements will not be evaluated with respect to their scientific profile.</p>



Application:	Required documents: <ul style="list-style-type: none">▪ CV▪ Letter of interest▪ 2 recommendation letters▪ Statement of past and proposed future research (2-3 pages)
Evaluation:	Based on the provided application documents of each candidate, the evaluation committee will evaluate qualitatively: the adaption of the previous training and career to the profile offered, the recommendation letters, the main results achieved (papers, proceedings, etc.), the statement of past and proposed future research and other merits; taking in account the alignment of these items to the topic offered.
Incorporation:	June 2024

