

The Fundació Bosch i Gimpera was created in 1983 as a knowledge, technology and innovation transfer center of the University of Barcelona (UB). As its own means, it is in charge of innovation, promotion, valorization, transfer of results and management of contracts, agreements and projects of the UB and needs to incorporate:

# **Research assistant in holographic cosmology**

#### **Functions:**

Project: the project will consist of construction algorithms that develop the concepts of manufactured solutions and transfer learning in the framework of deep learning neural networks with application to solutions of holographic solutions of conformal field theories at non-zero temperature. These algorithms will be used to further develop the framework of neurodiffeq and holography.

### **Profile:**

Previous experience: we are seeking a candidate that has significant previous experience and advance knowledge of the neuridiffeq package https://neurodiffeq.readthedocs.io/en/latest/intro.html that has been used to solve partial differential equations in the framework of holographic cosmology. In particular, the candidate will need to show demonstrable, in terms of form of written publications, proficiency at running the package and implementing holographic PDEs in it that have led to relevant solutions. Further, the candidate will need to show mastery of the python programing language as well as quantum gravity and conformal field theories within the framework of holography.

#### **Competencies:**

Proficiency in running the neuridiffeq package and implementing holographic PDEs. Mastery of the python programing language as well as quantum gravity and conformal field theories within the framework of holography.

#### We offer:

- Permanent contract
- Weekly schedule: 37.5
- Gross monthly salary: 1819.75 Euros

#### **Reserve:**

Reserved for personnel with disabilities, in accordance with the provisions of Article 59 of the Legislative RD 5/2015, of October 30, passing the revised text of the Law of the Basic Statute of Public Employee.

#### **Equality of oppotunities:**

In accordance with the measures set forth in the Fundació Bosch i Gimpera Equality Plan, we incorporate

the gender perspective in the selection process to guarantee equal opportunities, neutrality, transparency and avoid prejudice and discrimination based on gender.

## Additional information:

- Project Director: VERDE, LICIA
- Project Number: 312397

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