

## **Theoretical High-Energy Physics, Gravitational Physics, Quantum Information in AdS/CFT**

A one-year postdoctoral position (12 months) funded by IIT-Gandhinagar at Physics Discipline with Prof. Arpan Bhattacharyya, is available with a possibility of extension subject to availability of fund, appropriate review by physics discipline and approval from institute. A successful candidate is expected to conduct research on aspects of quantum information in the AdS/CFT correspondence, conformal field theory, complexity in quantum field theories and various aspects of recent developments in gravitational physics particularly focusing on Black-hole physics and preferably have some experience with numerics.

### **The requirements:**

The candidate should hold a PhD degree in physics, preferably not longer than 3 years. Candidates who are have submitted their thesis or, are about to submit may also apply. Such candidate if selected will be appointed initially as Research Associate and latter will be promoted to postdoc after obtaining the PhD degree. Strong record of publications in at least one of the following topics is required: Holography and AdS/CFT, Conformal Field theory, Quantum Information in Quantum Field Theory, Tensor Networks, Circuit Complexity, Black-hole physics, and quasi-normal modes analysis.

### **Conditions of employment:**

**Place of employment:** Physics Discipline, IIT-Gandhinagar

**Employment period:** 12 months

**Employment scope:** 1 full position

**Salary:** Salary will vary from Rs: 45,000- 60,000 /- and will be decided depending on the experience of the candidate following institute norm.

**Contingency:** There will be an one time contingency of Rs: 1,00,000/-

**Note:** The successful candidate is encouraged to apply for the National Postdoctoral Fellowship (N-PDF)(if the opportunity comes) with Prof. Arpan Bhattacharyya during this one year tenure if they are eligible.

### **Key Responsibilities:**

The candidate is expected to conduct research at IIT-Gandhinagar on the above-mentioned subjects and help the host with various departmental and teaching-related activities.

### **Documents required:**

The candidate should provide the following documents:

1. Application for the position (Cover Letter). In case of submitting the application by e-mail, please use the pdf-format and the file should contain a scanned signature.
2. CV including the list of publications.
3. A short research statement (not more than 2 pages).
4. 3 letters of recommendation. Letters of Reference should be sent to the following email id:  
**abhattacharyya@iitgn.ac.in**
5. A PhD diploma (a formal confirmation of PhD degree or expected date of graduation in case of the candidate still waiting for the degree). A successful candidate should submit originals).

**The candidate should make sure that all documents are sent to abhattacharyya@iitgn.ac.in preferably by 15th June, 2020 (the deadline may be extended if the position remains vacant.)**

In case of any queries, kindly contact the undersigned:

Arpan Bhattacharyya,

Assistant Professor,

Physics Discipline, IIT-Gandhinagar

email: abhattacharyya@iitgn.ac.in