

1 Introduction

This review of the Department of Theoretical Physics (DTP) of the Tata Institute for Fundamental Research, Mumbai (TIFR) was invited by the Institute director, Prof. Sandip Trivedi, in the latter part of 2017 and the early months of 2018. The review committee convened at the TIFR on April 24-26, 2018.

The members of the review committee were:

- Michael Peskin (SLAC/Stanford University), chair
- James Bullock (University of California, Irvine)
- Taku Izubuchi (Brookhaven National Laboratory/RIKEN)
- Joel Moore (University of California, Berkeley)
- Yosef Nir (Weizmann Institute)
- Hirosi Ooguri (Caltech)

The committee was provided in advance with extensive documentation concerning the department, including reports on the activities of its various research groups and the academic profiles of its members. The committee was also provided with the report of the previous committee to review the DTP, which met in September 2006.

In his invitation to the committee, Prof. Trivedi asked that the committee consider the following questions:

1. How is the department doing? How can it improve?

Please consider

- (a) Possible new directions
- (b) Evaluation of the faculty: Which areas should be targeted for future appointments? In which areas are there opportunities for new hiring initiatives?
- (c) Programs for students and postdocs: Are the current systems working well? What needs improvement?

2. How is the DTP integrated with other branches of TIFR?

Please consider

- (a) Integration of the DTP with other groups at TIFR Mumbai, i.e, the astrophysics, computer science, math, experimental groups
- (b) Integration of the DTP with TIFR branches in other cities, including ICTS and TIFR CAM (Bangalore) and TIFR-Hyderabad

3. What other areas deserve attention?

For example: structure of the department, funding, outside collaboration, educational program, outreach

The committee's visit included meetings with each of the DTP research groups and separate meetings with department members at all levels. A detailed schedule of the review is given in Appendix A.