DST Brain-Storming Meeting
on
Quantum Information Science and Technology (QuST)

Organizers: Arun K Pati, Aditi Sen De and Ujjwal Sen
Quantum Information and Computation Group
Harish-Chandra Research Institute (HRI), Allahabad
Date: 09-10 October 2017

The present century has witnessed a revolution in harnessing the principles of quantum physics for information processing. The frontier area of Quantum Information Science is truly an interdisciplinary one that is developed by scientists from Physics, Computer Science, Mathematics, and Information Theory as well as Engineers. Quantum information has flourished over the last 30 years and significant progress has been made in the last three decades. Some of the important developments were the discovery of quantum computers, fast quantum algorithms, quantum teleportation, super dense coding, remote state preparation, quantum cryptography, and several quantum communication protocols. Quantum Information Science and Technology (QuST) promises to revolutionize the future computation and communication systems which will ultimately have huge impact on the Nation and our society as a whole.

The aim of this meeting is to discuss and map all the research proposals to various components under several major Themes of National importance.

Legend:

Theme 1: Quantum Information Technologies with Photonic devices

Theme 2: Quantum Information Technologies with Solid state, Nitrogen vacancy, NMR, Quantum dot devices

Theme 3: Quantum Information Technologies with ion-trap and Optical-lattice devices

Theme 4: Quantum Information technologies with Superconducting qubit devices

Theme 5: Mathematical and Fundamental aspects of Quantum Information

DST QuST Meeting Program
09th October 2017

Day 1: Begins in the auditorium

8:30 AM: Registration

9:00 - 9:30 AM Inaugural session: Welcome
Inauguration by Director, HRI

9:30 - 12:00 PM Framework development by Dr. K. R. Murali Mohan.

12:00-1:00 PM Groups formation by Researchers

1:00-2:00 PM Lunch Break (at HRI Guest House Ground Floor.)

2:00-4:00 PM Groups breakout for discussions under various themes (T1, T2, T3, T4)

4:00-4:30 PM Discussion under T5

4:30-5:30 PM Presentation by Theme 4 Coordinators and Co-coordinator.

5:30 - 6:30 PM Presentation by Theme 5 Coordinators and Co-coordinator.

6:30 PM: Tea (in front of auditorium)

8PM: Dinner (at HRI Guest House Ground Floor.)

NOTE: Discussions have been arranged at the following areas.

Theme 1: HRI auditorium (same as where the previous events were happening)

Theme 2: Higgs lecture hall. (on floor above the auditorium) [Rajiv Kumar/Chandan Kanaujiya to take researchers there.]

Theme 3: Conference room (on first floor of Institute building, just in front of the auditorium) [May be required to be shifted to Neutrino discussion room] [Ujjwal Sen to take researchers there.]

Theme 4: String Small Seminar room [Shweta Srivastava to take researchers there.]

Theme 5: String Lecture Hall [Aditi Sen(De) to take researchers there.]

DST QuST Meeting Program
10th October 2017

Day 2: Throughout in auditorium

9 - 10 AM: Presentation by Theme 1 Coordinators and Co-coordinator.

10:00 -11:00 AM: Presentation by Theme 2 Coordinators and Co-coordinator.

11:00- 12:00 AM: Presentation by Theme 3 Coordinators and Co-coordinator.

12:00 - 1:00 PM: Final Framework by Arun K Pati

1:00-2:30 PM: Lunch Break (at HRI Guest House Ground Floor.)

3: 30 PM: Tea (in front of auditorium)

8PM: Dinner (at HRI Guest House Ground Floor.)
