Goals of the Workshop

R. Palit for the organizing committee

End-End experiments with the positronium system

The goal of this workshop is to brainstorm the different elements needed to set up an end-end physics program using the positronium system. For such an endeavour to succeed it is essential to plan together at an early stage with an interdisciplinary team of domain experts. In order to keep the discussion focussed we would like to cover the following topics:

- The physics potential using a positronium system
- Existing positronium based experimental programs
- Active materials, photodetectors (conventional and quantum)
- Front-end and backend electronics
- Utility of pico-second level timing and synchronization
- Positronium source and beamline
- Simulation, triggering and reconstruction

Positronium basics

	Basics of Positronium Physics and Entanglement in Positronium system	*Pawel Moskal*
	TIFR Guest house seminar room, TIFR, Mumbai	11:30 - 12:00
12:00	**New Physics with the Positronium system: a theory perspective**	*Tuhin Roy*
	TIFR Guest house seminar room, TIFR, Mumbai	12:00 - 12:30
	Discussion	
	TIFR Guest house seminar room, TIFR, Mumbai	12:30 - 13:00

Active materials

14:00	**A most versatile scintillation detector and its application in various fields**	*Dr Mohit Tyagi et al.*
	TIFR Guest house seminar room, TIFR, Mumbai	14:00 - 14:30
	Crystal Growth of Technologically Advanced Materials	*Dr Sarguna RM*
	TIFR Guest house seminar room, TIFR, Mumbai	14:30 - 15:00
15:00	**Towards pico second timing**	*Dr Rohith Saradhy*
	TIFR Guest house seminar room, TIFR, Mumbai	15:00 - 15:30

Front-end electronics

16:00	**The FERS family of readout systems : CAEN**	*Mr Carlo Tintori et al.*
	TIFR Guest house seminar room, TIFR, Mumbai	16:00 - 16:30
	The CALOROC ASIC for multi-channel SIPM readout	*Dr Damien Thienpont*
	TIFR Guest house seminar room, TIFR, Mumbai	16:30 - 17:00
17:00	**Low noise preamplifiers for detectors in nuclear physics**	*Akhil Jhingan*
	TIFR Guest house seminar room, TIFR, Mumbai	17:00 - 17:30

Positronium source and beam

	A Leap from Isotopes to Reactors: Path to High-Intensity Positron Beams	*Dr Sudarshan Kathi*
	TIFR Guest house seminar room, TIFR, Mumbai	09:30 - 10:00
10:00	**JPET for the study of antimatter, space, gravitation**	*Sushil Sharma*
	TIFR Guest house seminar room, TIFR, Mumbai	10:00 - 10:30
	Discrete Multimode Annihilation Resonances in Positron-Molecule Bound States	*Soumen Ghosh*
	TIFR Guest house seminar room, TIFR, Mumbai	10:30 - 11:00

Applicatons

	Nuclear Physics Applications	*Rudrajyoti Palit*
	TIFR Guest house seminar room, TIFR, Mumbai	11:30 - 12:00
12:00	**Performance Evaluation and Recent Advancements in Nuclear Medicine Detectors**	*Dr Ashish Jha*
	TIFR Guest house seminar room, TIFR, Mumbai	12:00 - 12:30
	Discussion	
	TIFR Guest house seminar room, TIFR, Mumbai	12:30 - 13:00

Laser and Scintillator + SiPM

14:00	**Development of multichannel scintillator + SiPM systems**	*Gobinda Majumder*
	TIFR Guest house seminar room, TIFR, Mumbai	14:00 - 14:30
	Pettawatt facility in TIFR H	*Prof. Prashant Kumar Singh*
	TIFR Guest house seminar room, TIFR, Mumbai	14:30 - 15:00
15:00	**Sscience of Pettawatt**	*Prof. MK Krishanmurthy*
	TIFR Guest house seminar room, TIFR, Mumbai	15:00 - 15:30

ASET Colloquium

16:00

Session 7: ASET Colloquium : "What Time is it?" by Prof Roger Rusack

TIFR Guest house seminar room, TIFR, Mumbai 16:00 - 17:00

17:00

Simulation and closeout

10:00	**Simulations with GEANT4**	*Mr Chetan Agrawal*
	TIFR Guest house seminar room, TIFR, Mumbai	10:00 - 10:30
	Summary of the workshop	*Seema Sharma*
	TIFR Guest house seminar room, TIFR, Mumbai	10:30 - 11:00
11:00	**Discussion and Closeout**	
	TIFR Guest house seminar room, TIFR, Mumbai	11:00 - 11:15