Horizons in Accelerators, Particle/Nuclear Physics and Laboratory-Based Quantum Sensors for HEP/NP 14 November 2022 to 17 November 2022 Venue: Chandrasekhar Auditorium		
All the timings mentiond below are in IST		
DAY I - Monday, November 14, 2022		
Inaugural Session		
CHAIR: Y.N. Yusuf		
09:15 – 09:25	Rajesh Gopakumar (Director, ICTS)	Welcome address
09:25 – 09:40	K.N. Vyas (Secretary DAE & Chairman AEC)*	Inaugural Address
09:40 – 10:00	Rohini Godbole (IISc) Swapan Chattopadhyay (Fermilab, IISc)	Introduction – Goals of the Meeting
10:00 – 10:45	John Ellis (King's College, London)	Physics Overview
10:45 – 11:15	C O F F E E	
CHAIR: Atul Gurtu		
11:15 – 11:55	Frank Zimmermann (CERN)	Accelerator Overview
11:55 – 12:35	Christopher Tully (Princeton U)	Detector Overview
12:35 – 13:15	Sunanda Banerjee (IACS)	Detector Simulations Overview
13:15 – 14:30	L U N C H	
Hadron Colliders		
CHAIR: Christopher Tully		
14:30 – 15:00	Biplob Bhattacherjee (IISc)	Physics case for hadron colliders:
15:00 – 15:30	Jorgen D'Hondt (U of Brussels)	Physics case for electron-hadron colliders
15:30 – 16:00	C O F F E E	
16:00 – 16:30	Markus Zerlauth (CERN, Switzerland)*	HL-LHC (machine)
16:30 – 17:00	Seema Sharma (IISER Pune)	HL-LHC and 100 TeV Collider (detectors):
17:00 – 17:30	C O F F E E	
CHAIR: Rajesh Gopakumar		
17:30 – 18:30	Ashoke Sen (ICTS-TIFR)	Special Lecture: String Theory and Particle Physics
End of first day's session		
DAY II - Tuesday, November 15, 2022		
Lepton Colliders		
CHAIR: Frank Zimmermann		
10:00 – 10:30	Sven Heinemeyer (U of Madrid)	Physics case for lepton colliders, incl. $\mu^+\mu^-$
10:30 – 11:00	Massimo Casarsa (INFN, Trieste)	$\mu^+\mu^-$colliders
11:00 – 11:30	Junping Tian (Tokyo U) *	Detectors for lepton colliders
11:30 – 12:00	C O F F E E	
12:00 – 12:30	Gregorio Bernardi (APC-Paris, CNRS/IN2P3)	e^+e^- machines – FCC-ee, CEPC
12:30 – 13:00	Philip Burrows (U of Oxford)*	Status of the ILC and CLIC projects
13:00 – 14:00	L U N C H	
Neutrino and Flavour Physics		
CHAIR: Naba K. Mondal		
14:00 – 14:30	Srubabati Goswami (PRL)	Neutrino Physics – Future Goals
14:30 – 15:00	Srinivas Krishnagopal (BARC)	High intensity proton beams: Indian perspective
15:00 – 15:30	Bipul Bhuyan (IIT Guwahati)	DUNE – Physics and Detectors
15:30 – 16:00	Vandana Nanal (TIFR)	Detectors for NP experiments and JPARC
16:00 – 16:30	C O F F E E	
CHAIR: Sudhir Vempati		
16:30 – 17:00	Rukmani Mohanta (U of Hyderabad)	Flavour Physics Overview
17:00 – 17:30	James Libby (IIT Madras)	Belle II: Status and prospects
17:30 – 18:00	C O F F E E	
CHAIR: Vivek Datar		
18:00 – 19:00	Swapan Chattopadhyay (Fermilab)	Distinguished Lecture : Maxwell's Demon goes Optical
End of second day's session		
DAY III - Wednesday, November 16, 2022		
Future Experimental Techniques		
CHAIR: Sadiq Rangwala		
10:00 – 10:40	Ferdinand Willeke (Brookhaven)	Electron-Ion Collider with Energy Recovery and Beam Cooling:
10:40 – 11:20	Benjamin Nachman (LBL, Berkeley)*	Machine learning in HEP:

11:20 – 11:50	C O F F E E	
11:50 – 12:20	Allen Caldwell (MPI, Munich)*	Plasma Wakefield Acceleration and AWAKE
12:20 – 13:00	Michael Doser (CERN)	Quantum Technology for HEP:
13:00 – 14:15	L U N C H	
Future Experimental Techniques (continued)		
CHAIR: Swapan Chattopadhyaya		
14:15 – 14:50	Surjeet Rajendran (Johns Hopkins U)	Quantum sensors and future detectors
14:50 – 15:10	Vibhor Singh (IISc)	Quantum sensors – work in the Indian context
15:10 – 15:50	R. Vijayraghavan (TIFR)	Quantum sensors – work in the Indian context
15:50 – 16:20	C O F F E E	
16:20 – 16:50	Apoorva Patel (IISc)	Sensing with waves: classical and quantum
16:50 – 17:20	Oliver Buchmüller (Imperial College, London)	Atomic Interferometers
19:15	***CULTURAL PROGRAM***	
End of third day's session		
DAY IV - Thursday, November 17, 2022		
Vision Documents		
CHAIR: Debajyoti Choudhury		
10:00 – 10:35	R. Shekhar Chivukula (UC San Diego)	SNOMASS Physics:
10:35 – 11:10	Vladimir Shiltsev (Fermilab)*	SNOMASS Accelerators:
11:10 – 11:40	C O F F E E	
11:40 – 12:15	Eric Laenen (NIKHEF)	Euro-strategy:
12:15 – 12:45	D. Indumathi (IMSc)	India – INO:
12:45 – 13:50	L U N C H	
Vision Documents (Continued)		
CHAIR: Rajiv V. Gavai		
13:50 – 14:10	Bedanga Mohanty (NISER)	India – Heavy Ion Physics
14:10 – 14:30	Subhasis Chattopadhyay (VECC)	India and FAIR:
14:30 – 14:50	Vaishali Naik (VECC)*	India – Radioactive Beams etc
14:50 – 15:10	Vivek Datar (IMSc)	India – underground experiments
15:10 – 15:40	C O F F E E	
Valedictory Session		
CHAIR: Rohini Godbole		
15:40 – 16:10	Amol Dighe (TIFR)	Mega Science Vision 2035 – NP and PP Summary
16:10 – 16:25	Sunil Ganju (DAE)*	Government of India perspective
16:30 – 18:00	Moderators : Rohini Godbole, Swapan Chattopadhyay	PANEL DISCUSSION: Future Pathways in HEP and Indian involvement
	Panelists 1. Amit Roy (IUAC) 2. Biswarup Mukhopadhyaya (IISER, Kolkata) 3. Eric Laenen (NIKHEF) 4. Frank Zimmermann (CERN) 5. Gregorio Bernardi (APC-Paris, CNRS/IN2P3) 6. John Ellis (King's College, London) 7. Michael Doser (CERN) 8. Naba K. Mondal (SINP) 9. Purushottam Srivastava (RRCAT) 10. R. Shekhar Chivukula (UC San Diego) 11. Satyaki Bhattacharya (SINP) 12. Vladimir Shiltsev (Fermilab) 13. Sunil Ganju (DAE)* 14. Amol Dighe (TIFR) 15. Apoorva Patel (IISc)	
18:00 – 18:20	Ajay K. Sood (PSA, GOI)*	Valedictory Address:
18:20 – 18:25	Vote of Thanks	
End of meeting		
***-ONLINE**		