

C. K. MAJUMDAR MEMORIAL SUMMER WORKSHOP IN PHYSICS 2024
Organised jointly by
Indian Association of Physics Teachers (Regional Council 15) [IAPT RC 15]
and
S. N. Bose National Centre for Basic Sciences [SNBNCBS], Kolkata
(July 22, 2024 to July 31, 2024)
 VENUE : *FERMION*, SNBNCBS

PROGRAMME SCHEDULE
Monday, July 22, 2024

Time	Name of the Speaker	Affiliation	Title of the talk /Event
<u>SESSION I</u>			
Inaugural Session			
09:45 a.m. to 10:15 a.m.	Speaker : Prof. Anjan Barman	Dean, Faculty, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Welcome Address</i>
10:15 a.m. to 10:30 a.m.	Speaker : Dr. Bhupati Chakrabarti	Former General Secretary, IAPT	<i>A few words about IAPT and the Workshop</i>
10:30 a.m. to 11:00 a.m.	<i>TEA</i>		<i>BREAK</i>
Keynote Address			
11:00 a.m. to 12:15 p.m.	Speaker : Prof. Rupamanjari Ghosh	Former Vice-chancellor, Shiv Nadar University, Greater Noida	<i>Quantum century in 2025: International Year of Quantum Science and Technology</i>
12:15 p.m. to 01:30 p.m.	Speaker : Dr. Parijat De	Department of Astrophysics and High Energy Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Scattering in Quantum Mechanics</i>
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		<i>BREAK</i>
<u>SESSION II</u>			
02:30 p.m. to 03:30 p.m.	Speaker: Dr. Surajit Chakrabarti	Formerly in Department of Physics, Maharaja Manindra Chandra College, Kolkata	<i>Address to the participants</i>
03:30 p.m. to 05:30 p.m.	<i>Laboratory</i>		<i>Work</i>

Tuesday, July 23, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Prof. Arnab Rai Choudhuri	Department of Physics, Indian Institute of Science, Bengaluru	<i>The mysterious magnetic personality of our Sun</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		
	<i>BREAK</i>		
11:00 a.m. to 12:15 p.m.	Speaker : Prof. Amitabha Lahiri	Department of Astrophysics and High Energy Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Gauge invariance and interactions in quantum theor.</i>
12:15 p.m. to 01:30 p.m.	Speaker : Prof. Arnab Rai Choudhuri	Department of Physics, Indian Institute of Science, Bengaluru	<i>Basics of magnetohydrodynamics and applications to the Sun</i>
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		
	<i>BREAK</i>		
<u>SESSION II</u>			
02:30 p.m. to 05:30 p.m.	<i>Laboratory</i>		
	<i>Work</i>		

Wednesday, July 24, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Dr. Suman Chakrabarty	Department of Chemical and Biological Sciences, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Computational Molecular Biophysics: Using computer simulations to understand the thermodynamics and kinetics of biomolecular processes</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		
	<i>BREAK</i>		
11:00 a.m. to 12:15 p.m.	Speaker : Prof. Asoke Kumar Sen	Department of Physics, Assam University, Silchar	<i>Recent space missions to comets and our present day understanding of the origin of the solar system</i>

12:15 p.m.to 01:30 p.m.	Speaker : Dr. Subhro Bhattacharjee	International Centre for Theoretical Sciences, Tata Institute of Fundamental Research, Bengaluru	<i>The material multiverse</i>
01:30 p.m.to 02:30 p.m.	<i>LUNCH</i>		<i>BREAK</i>
<u>SESSION II</u> 02:30 p.m.to 05:30 p.m.	<i>Laboratory</i>		<i>Work</i>

Thursday, July 25, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u> 09:30 a.m. to 10:45 a.m.	Speaker : Prof. Asoke Kumar Sen	Department of Physics, Assam University, Silchar	<i>Polarisation measurement as a diagnostic tool to probe various astrophysical processes</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		<i>BREAK</i>
11:00 a.m. to 12:15 p.m.	Speaker : Dr. Sangram Bagh	Division of Biophysics and Structural Genomics, Saha Institute of Nuclear Physics, Salt Lake	<i>Building computers and AI with living cells</i>
12:15 p.m.to 01:30 p.m.	Speaker : Prof. Rangeet Bhattacharyya	Department of Physical Sciences, Indian Institute of Science Education and Research, Kolkata	<i>Discrete Time Crystals and Prethermalization in Dipolar System</i>
01:30 p.m.to 02:30 p.m.	<i>LUNCH</i>		<i>BREAK</i>
<u>SESSION II</u> 02:30 p.m.to 05:30 p.m.	<i>Laboratory</i>		<i>Work</i>

Friday, July 26, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Dr. Saquib Shamim	Department of Condensed matter and Material Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Introduction to two- dimensional topological insulators</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		
	<i>BREAK</i>		
11:00 a.m. to 12:15 p.m.	Speaker : Prof. Sunandan Gangopadhyay	Department of Astrophysics and High Energy Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Uniformly accelerated observer, equivalence principle and clocks in gravitational field</i>
12:15 p.m. to 01:30 p.m.	Speaker : Dr. Bibhas Bhattacharyya	Department of Physics, West Bengal State University, Barasat, Kolkata	<i>Ising model of magnetism</i>
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		
	<i>BREAK</i>		
<u>SESSION II</u>			
02:30 p.m. to 05:30 p.m.	<i>Laboratory</i>		
	<i>Work</i>		

Saturday, July 27, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Prof. Samit Kumar Ray	Institute Chair Professor, Department of Physics, IIT Kharagpur, Kharagpur; Former Director, S. N. Bose National Centre for Basic Sciences, Salt Lake	<i>Recent Trends in Semiconductor Devices</i>

10:45 a.m. to 11:00 a.m.	<i>TEA</i>		<i>BREAK</i>	
11:00 a.m. to 12:15 p.m.	Speaker : Dr. Arijit Haldar	Department of Physics of complex systems, S N Bose National Centre for Basic Sciences, Salt Lake	Variational principle in Quantum Mechanics and some of its applications Lecture - I	
12:15 p.m. to 01:30 p.m.	Speaker : Dr. Arijit Haldar	Department of Physics of complex systems, S N Bose National Centre for Basic Sciences, Salt Lake	Variational principle in Quantum Mechanics and some of its applications Lecture - II	
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		<i>BREAK</i>	
<u>SESSION II</u>				
02:30 p.m. to 03:45 p.m.	Speaker : Dr. Shubhasis Haldar,	Department of Chemical and Biological Sciences, S N Bose National Centre for Basic Sciences, Salt Lake	Proteins: The Nanomachines of our Body	
03:45 p.m. to 05:30 p.m.	<i>STUDENTS'</i>		<i>SESSION</i>	

Sunday, July 28, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Dr. Ananda Dasgupta	Department of Physical Sciences, Indian Institute of Science Education and Research, Kolkata	How birds flock: the physics of active matter
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		<i>BREAK</i>
11:00 a.m. to 01:30 p.m.	<i>STUDENTS' SESSION</i>		
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		

Monday, July 29, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
<u>SESSION I</u> 09:30 a.m.to 10:45 a.m.	Speaker : Prof. Tanusri Saha Dasgupta	Director, S N Bose National Centre for Basic Sciences, Salt Lake,	<i>Machine Learning in Designing New Materials with Targeted Properties</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i> <i>BREAK</i>		
11:00 a.m. to 12:15 p.m.	Speaker : Dr. Bhupati Chakrabarti	Formerly in Department of Physics, City College, Kolkata	<i>'Action at a Distance': Looking Back to the Emergence of Bose Statistics in its Centenary Year</i>
12:15 p.m.to 01:30 p.m.	Speaker : Prof. Palash Baran Pal	Department of Physics, Calcutta University	<i>Neutrinos</i>
01:30 p.m.to 02:30 p.m.	<i>LUNCH</i> <i>BREAK</i>		
<u>SESSION II</u> 02:30 p.m.to 05:30 p.m.	<i>Laboratory Work</i>		

Tuesday, July 30, 2024

Time	Name of the Speakers	Affiliation	Title of the talk / Event
<u>SESSION I</u>			
09:30 a.m. to 10:45 a.m.	Speaker : Prof. Parthasarathi Majumdar	School of Physical Sciences, Indian Association for the Cultivation of Science Jadavpur, Kolkata	<i>A new approach to classical electrodynamics, with implications for the Aharonov-Bohm effect and the Higgs phenomenon</i>
10:45 a.m. to 11:00 a.m.	<i>TEA</i>		<i>BREAK</i>
11:00 a.m. to 12:15 p.m.	Speaker : Prof. Gour P Das	Research Institute for Sustainable Energy (RISE), TCG-CREST, Salt Lake	<i>Physics and Chemistry of Energy storage : From Batteries to Hydrogen</i>
12:15 p.m. to 01:30 p.m.	Speaker : Prof. Sonjoy Majumder	Department of Physics, Indian Institute of Technology Kharagpur, Kharagpur	<i>Bose-Einstein Condensation: State of the art and recent findings of AMQI Group @IITKGP</i>
01:30 p.m. to 02:30 p.m.	<i>LUNCH</i>		<i>BREAK</i>
<u>SESSION II</u>			
02:30 p.m. to 04:00 p.m.	<i>STUDENTS' SESSION</i>		
04:00 p.m. to 05:15 p.m.	Speaker : Dr. Ramkrishna Das	Department of Astrophysics and High Energy Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Challenges in Observational Astronomy</i>
05:15 p.m. to 06:45 p.m.	Dr. Ramkrishna Das	Department of Astrophysics and High Energy Physics, S N Bose National Centre for Basic Sciences, Salt Lake	<i>Telescope demonstration</i>

Wednesday, July 31, 2024

Time	Name of the Speaker	Affiliation	Title of the talk / Event
09:30 a.m. to 10:45 a.m.	<i>STUDENTS'</i>		<i>SESSION</i>
10:45 a.m. to 11:30 a.m.	<i>AND</i>	<i>TEA</i> <i>GROUP</i>	<i>BREAK</i> <i>PHOTOGRAPH</i>
11:30 a.m. to 12:15 p.m.	<i>STUDENTS'</i>		<i>SESSION</i>
12:15 p.m. to 01:30 p.m.	<i>Valedictory</i>		<i>Session</i>
01:30 p.m. to 02:30 p.m.			<i>LUNCH</i>

***** END OF THE PROGRAMME *****