



Programme Guide

26 February 2021

8:15 am – 9:00 am	Registration
9:00 am – 9:15 am	Inauguration Venue: Conference Hall, Academic Block – I Zoom alias: https://tinyurl.com/timp-21-zoom
9:15 am – 10:00 am	Plenary talk: Prof. Vijay A. Singh President, IAPT <i>Semiconductor Nanostructures: Simple Scaling Approach</i>
10:00 am – 10:30 am	<i>Group photograph</i> <i>High tea</i>

Technical session I

Theme: *Nuclear Physics*

Chair: Dr. Samrat Dey, Assam Don Bosco University

Venue: *Conference Hall, Academic Block – I*

Zoom alias: <https://tinyurl.com/timp-21-zoom>

10:30 am – 11:00 am	Online	Invited talk I: Prof. Ashok K. Jain Amity University, India <i>Extremely Low Energy Isomers and their applications</i>
11:00 am – 11:15 am	Online	Abs. ID: NL003 Manvi Rajput Central University of Jammu <i>Microscopic Study of nuclear structure properties of some odd mass Palladium isotopes</i>
11:15 am – 11:30 am	Online	Abs. ID: NL043 Manmeet Singh Lovely Professional University <i>Characteristic range of ^{238}U ion in polycarbonates</i>
11:30 am – 11:45 am	Offline	Abs. ID: NL021 Aibanjop Pyngrope North-Eastern Hill University <i>Radiation exposure due to indoor radon and thoron</i>
11:45 am – 12:00 pm	Online	Abs. ID: NL026 Jodie Tiffany Rynngga North-Eastern Hill University <i>Moisture Content Study of Soil Found in the Sung Valley, Meghalaya</i>
12:00 pm – 12:15 pm	Online	Abs. ID: NL002 Veerta Rani Central University of Jammu <i>Theoretical Study of Band Structure of Positive Parity $^{153,155}\text{Pm}$ Isotopes</i>
12:15 pm – 12:30 pm		Abs. ID: NL007 Nabendu Kumar Deb



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		Gauhati University <i>Analyzing Fusion Excitation Functions Around the Barrier for $^{18}\text{O} + ^{116}\text{Sn}$</i>
12:30 pm – 12:45 pm		Abs. ID: NL046 Bobbyland Lyngkhoi North-Eastern Hill University <i>Lifetime Cancer Risk Assessment due to Gamma Radioactivity in Building Materials of East Khasi Hills District of Meghalaya, India</i>
12:45 pm – 1:00 pm		Abs. ID: NL054 Puinapati Devi Ningthoujam Ideal Girls' College <i>A study of multiplicity distribution of secondary particles at ultra high cosmic ray nuclear emulsion interactions and machine range of energy</i>
1:00 pm – 1:15 pm		Abs. ID: NL059 Samrat Dey Assam Don Bosco University <i>On the free rotation of a molecule embedded in helium-4 clusters</i>
1:15 pm – 1:30 pm		Abs. ID: NL066 Yubaraj Sharma Don Bosco College <i>Counting of alpha tracks in Coloured LR-115 films using image analysis tools</i>

1:30 pm – 2:30 pm	<i>Lunch</i>	
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Technical session II

Theme: *Astrophysics & Cosmology*

Chair: Dr. Monmoyuri Baruah, Assam Don Bosco University

Venue: *Conference Hall, Academic Block - I*

Zoom alias: <https://tinyurl.com/timp-21-zoom>

2:30 pm – 3:00 pm	Online	Invited talk II: Dr. Jan-Uwe Ness European Space Agency, Spain <i>Observing Nuclear Burning on the Surface of White Dwarf Stars</i>
3:00 pm – 3:30 pm	Online	Invited talk III: Prof. Atri Deshamukhya Assam University, India <i>Tropical Cyclones: A look through double eye walls</i>
3:30 pm – 3:45 pm	Online	Abs. ID: AC008 Sachin Kaothekar Mahakal Institute of Technology & Management <i>Thermal Instability of Two-Component Plasma with Frictional Effect of Neutrals Hall Current and Radiative Heat-Loss Functions</i>
3:45 pm – 4:00 pm	Online	Abs. ID: AC040 Jyotirmoy Kalita Tripura University <i>Lee-wave clouds in Martian Atmosphere: A study based on the images captured by Mars Color Camera (MCC)</i>
4:00 pm – 4:15 pm	Offline	Abs. ID: AC004 Soma Mandal Government Girls' General Degree College



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		<i>Relation between the variability of the kilo-Hertz Quasi periodic oscillations and the low frequency noise in 4U1608 - 52</i>
4:15 pm – 4:30 pm	Online	Abs. ID: AC042 Kabita Deka Tezpur University <i>Distribution of X-ray flux: RXTE-PCA observation of Cygnus X-1</i>
4:30 pm – 4:45 pm	Online	Abs. ID: AC045 Rukaiya Khatoon Tezpur University <i>Flux distribution study of Mkn 421 with SPOL, RXTE and Fermi-LAT telescopes</i>
4:45 pm – 5:00 pm		Abs. ID: AC001 Darshan Singh G.D. Goenka University <i>Statistical Analysis of Cosmological Data</i>
5:00 pm – 5:15 pm		Abs. ID: AC033 Sonali Bhatnagar Dayalbagh Educational Institute <i>Pulse analysis of the DEASA (Dayalbagh Educational Air Shower Array) at Agra: in relation to air shower parameters</i>
5:15 pm – 5:30 pm		Abs. ID: AC055 Ashok Singh Gauhati University <i>Wavelet and scaling analysis of rainfall time series in Northeast region of India: intraseasonal to interdecadal oscillations and the solar activity and cosmic ray influence</i>
5:30 pm		<i>Tea & snacks</i>



Programme Guide

27 February 2021

Technical session III-A

Theme: *Material & Nanophysics*

Chair: Prof. Vijay A. Singh, *Indian Association of Physics Teachers*

Venue: *Crystal Hall, Academic Block - I*

Zoom alias: <https://tinyurl.com/timp-21-zoom>

8:30 am – 9:00 am	Online	Invited talk IV: Dr. Ramakrishna Podila Clemson University, USA <i>Stories from the Nano-bio lab at Clemson</i>
9:00 am – 9:30 am	Online	Invited talk V: Dr. Anthony Childress Northeastern University, USA <i>Directed Assembly of Nanomaterials: Methods and Applications</i>
9:30 am – 9:45 am	Online	Abs. ID: NM010 Susmita Baruah Tezpur University <i>A highly sensitive immunosensor based on gold nanoparticle functionalized poly (3, 4-ethylenedioxythiophene): polystyrene sulphonic acid doped with graphene oxide for efficient detection of serum immunoglobulin G (IgG)</i>
9:45 am – 10:00 am	Online	Abs. ID: NM015 Ashamoni Neog Tezpur University <i>Optical study of few layer WS₂ nanosheets</i>
10:00 am – 10:15 am	Online	Abs. ID: NM016 Jessie Jancyrani S. Manonmanium Sundaranar University <i>Bio synthesis, Characterisation and antibacterial performance of Trimanganese tetraoxide nano particles using Azadirachta Indica leaf extract</i>
10:15 am – 10:30 am	Online	Abs. ID: NM067 Chandrashekhhar M. Bhambere S.S. & L.S. Patkar-Varde College <i>Study on Structural, Spectral and Optical properties of Lithium Sulphate Monohydrate L- Valine Semiorganic Crystal</i>
10:30 am – 10:45 am	Offline	Abs. ID: NM037 Manashree Dutta Cotton University <i>Effect of Europium (Eu) doping on optical absorption spectra of Yttrium Oxide (Y₂O₃) nanoparticle</i>
10:45 am – 11:00 am		Abs. ID: NM034 Naba Kumar Rana IIT Bhilai <i>Fabrication and Characteristics of Methylammonium lead halide perovskite solar cell processed at ambient condition</i>
11:00 am – 11:15 am		Tea & snacks



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Technical session IV

Theme: *Plasma Physics*

Chair: Dr. Ngangom Aomoa, Assam Don Bosco University

Venue: *Conference Hall, Academic Block – I*

Google Meet alias: <https://tinyurl.com/timp-21-meet>

9:00 am – 9:30 am	Online	Invited talk VI: Dr. Srikumar Ghorui Bhabha Atomic Research Centre, India <i>Addressing Some of the Key Challenges in Thermal Plasma Technology</i>
9:30 am – 9:45 am	Offline	Abs. ID: PL019 Bidyt Chutia Institute of Advanced Study in Science and Technology <i>Observation and characterization of repetitive particle growth process in capacitively coupled rf discharge of Ar-C₂H₂ gas mixture</i>
9:45 am – 10:00 am	Offline	Abs. ID: PL022 Ankita Bhagawati Tezpur University <i>Role of laser pre-pulse and target density modification on the acceleration of protons from a hydrogen plasma sphere</i>
10:00 am – 10:15 am	Offline	Abs. ID: PL048 Jocelyn Sangma Centre of Plasma Physics - Institute for Plasma Research <i>Variation of high and low energetic electron densities across a magnetic filter in a hot cathode discharge</i>
10:15 am – 10:30 am	Offline	Abs. ID: PL051 Rupali Paul Centre of Plasma Physics - Institute for Plasma Research <i>Charging of dust grains in presence of two electron groups</i>
11:00 am – 11:15 am	<i>Tea & snacks</i>	



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Technical session III-B

Theme: *Material & Nanophysics*

Chair: Prof. Vijay A. Singh, *Indian Association of Physics Teachers*

Venue: *Crystal Hall, Academic Block - I*

Zoom alias: <https://tinyurl.com/timp-21-zoom>

11:15 am – 11:45 am	Offline	Invited talk VII: Prof. K. Venkataramaniah Sri Sathya Sai Institute of Higher Learning, India <i>Fluorescent Nanoparticle based Sandwich Immunoassays: A promise for ultrasensitive, highly specific, rapid, robust and early detection of HIV infection</i>
11:45 am – 12:15 pm		Invited talk IX: Prof. Yatendra S. Jain North-Eastern Hill University, India <i>A breakthrough in the field of microscopic understanding of classical and quantum fluids</i>
12:15 pm – 12:30 pm	Online	Abs. ID: NM014 Suvangshu Dutta D.R. College <i>Development of Agro-waste Based Nanosized Cellulose</i>
12:30 pm – 12:45 pm	Online	Abs. ID: NM038 Nishant Shukla Tezpur University <i>Cogent optical properties of Stanene from the perspective of first-principles calculations</i>
12:45 pm – 1:00 pm	Online	Abs. ID: NM009 P. Arockia Michael Mercy Arul Anandar College <i>Novel design of multi-band double U Slotted Microstrip Patch Antenna with DGS for X, Ku, and K band Applications</i>
1:00 pm – 1:15 pm	Online	Abs. ID: NM063 Ansh Gupta Lovely Professional University <i>Structural, morphological and optical properties of titanium dioxide nanomaterials prepared by sol gel technique</i>
1:15 pm – 1:30 pm	Offline	Abs. ID: NM062 Simanta Chutia St. Anthony's College <i>A comparative study of experimental and theoretical Z (compressibility factor) of Argon as a typical representative of simple fluids</i>
1:30 pm – 1:45 pm	Offline	Abs. ID: NM064 Francis Iawphniaw St. Anthony's College <i>Dependence of particle current and diffusion on the system parameters in a model under-damped inhomogeneous periodic potential system</i>
1:45 pm – 2:00 pm		Abs. ID: NM047 Ankit Gupta Agrawal P.G. College <i>Effect of K_2CrO_4 filler on the Dielectric permittivity and Electrical Modulus of PMMA</i>
2:00 pm – 3:00 pm	Lunch	



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Technical session V

Theme: *Particle Physics*

Chair: Prof. D. K. Choudhury, Gauhati University

Venue: Conference Hall, Academic Block - I

Google Meet alias: <https://tinyurl.com/timp-21-meet>

11:15 am – 11:45 am	Online	Invited talk VIII: Prof. Saurya Das University of Lethbridge, Canada <i>Our Universe: the known, unknown and some speculations</i>
11:45 am – 12:15 pm	Online	Invited talk X: Prof. Buddhadeb Bhattacharjee Gauhati University, India
12:15 pm – 12:30 pm	Offline	Abs. ID: PP030 Nilavjyoti Hazarika Gauhati University <i>Dark matter and vacuum instability in singlet scalar, inert doublet and mixed scalar dark matter models</i>
12:30 pm – 12:45 pm	Offline	Abs. ID: PP031 Paramita Deka Gauhati University <i>Impact of Systematics due to Multi-Nucleon Effects on the measurement of Neutrino Oscillation Parameters at NOvA Experiment</i>
12:45 pm – 1:00 pm	Offline	Abs. ID: PP039 Pritam Das Tezpur University <i>KeV sterile neutrino mass model and related phenomenology</i>
1:00 pm – 1:15 pm	Offline	Abs. ID: PP029 Maibam Ricky Devi Gauhati University <i>Searching limits on heavy Majorana neutrino mass spectrum for different textures of Majorana neutrino mass matrices</i>
1:15 pm – 1:30 pm	Offline	Abs. ID: PP036 Sangeeta Dey Cotton University <i>Phenomenological study of neutrino mass matrices with a vanishing minor and vanishing trace</i>
1:30 pm – 1:45 pm		Abs. ID: PP057 Jugal Lahkar Pragjyotish College <i>On the possible effects of extra-spatial dimension on the running quark gluon coupling constant and confinement parameter in QCD and masses of Heavy Flavour mesons</i>
1:45 pm – 2:00 pm		Abs. ID: PP058 Rashidul Hoque Pandu College <i>Branching ratios and Oscillation frequencies of heavy-flavour mesons in a non-relativistic QCD potential model with three-loop effects in V-scheme</i>
2:00 pm – 3:00 pm	Lunch	



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Poster session

3:00 pm – 4:30 pm

Venue: *Atrium, Academic Block - I*

Theme: <i>Nuclear Physics</i>	NL056, NL011, NL044, NL012
Theme: <i>Astrophysics & Cosmology</i>	AC027
Theme: <i>Material & Nanophysics</i>	NM017, NM024, NM025, NM035, NM070, NM006, NM018, NM020, NM053, NM023, NM028
Theme: <i>Plasma Physics</i>	PL068, PL013, PL049, PL050, PL052
Theme: <i>Particle Physics</i>	PP069, PP005, PP072, PP073, PP074, PP065, PP071
4:30 pm – 5:00 pm	Valediction Zoom alias: https://tinyurl.com/timp-21-zoom
5:00 pm	<i>Tea & snacks</i>