

Conference Schedule

Tuesday, 31st October 2017

Venue: Bose Institute (Unified Campus), College More, Plot No. 80, EN Block, Sector V, Salt Lake, Kolkata 700091

8.00 – 9.00	Breakfast / Registration RTCMP 2017	
9.00 - 10.30	Inauguration RTCMP 2017	
10.30 – 11.00	High Tea / Registration	
Session I Venue: Auditorium		
Session Chair : Prof. Indrani Bose, Bose Institute		
11.00 – 11.30	IL 1 - Prof. S. N. Kaul , University of Hyderabad <i>“Electrical- and magneto-transport in nanocrystalline band ferromagnets”</i>	
11.30 – 12.00	IL 2 - Dr. C. S. Sundar , IGCAR Kalpakkam <i>“Magneto transport in Topological States of Matter”</i>	
12.00 – 12.30	IL 3 – Prof. B. N. Dev , IACS Kolkata <i>“Loss of ferromagnetism and emergence of superconductivity in cobalt”</i>	
12.30 – 13.00	IL 4 – Prof. S. B. Ogale , IISER Pune <i>“Synthetic manipulation of the dimensionality and properties of hybrid perovskite systems in search of novel functionalities and applications”</i>	
13.00 – 14.00	Lunch / Registration	
14.00 – 15.00	Poster Session	Venue : Dining Hall
	SSP001-0020	
	NTF001-026	
	SMP001-015	
Session II Venue: Auditorium		
Session Chair: Prof. S. N. Kaul , University of Hyderabad		
15.00 – 15.30	IL 5 – Prof. Bikash K. Chakraborty , SINP Kolkata <i>“Quantum Tunnelling & Ergodicity in Quantum Spin Glasses”</i>	
15.30 – 16.00	IL 6 – Dr. Abhishek Singh , IISc Bangalore <i>“Rational design of high-performance thermoelectric materials”</i>	
16.00 – 16.30	IL 7 – Prof. S. M. Yusuf , BARC Mumbai <i>“Physics of Novel Magnetic States in Reduced Dimensions”</i>	
16.30 – 17.00	Tea Break / Registration	
Session III Venue: Lecture Hall 1		
Session Chair: Prof. S. M. Yusuf , BARC		
17.00 – 17.30	IL 8 – Dr. Sri Sivakumar , IIT Kanpur <i>“High pressure/Ligand oxidation driven phase transformation in lanthanide-doped nanomaterials”</i>	
17.30 – 18.00	IL 9 – Prof. Indranil Das , SINP Kolkata <i>“Particle size induced giant enhancement of magnetoresistance and magnetocaloric effect in manganite nanomaterials”</i>	
Session III Venue: Lecture Hall 2		
Session Chair: Prof. Sanjay Kumar Ghosh , Bose Institute		
17.00 – 17.30	IL 10 – Prof. Manabendra Mukherjee , SINP Kolkata <i>“Near Edge X-ray Absorption Fine Structure Spectroscopy (NEXAFS) and a few case studies”</i>	
17.30 – 18.00	IL 11 – Prof. T. N. Sairam , IGCAR Kalpakkam	

	<i>“Infrared spectroscopy as a low energy probe of condensed matter systems”</i>
Session III Venue: Classroom 1	
Session Chair: Dr. Manickam Mahendran , TCE Madurai	
17.00 – 17.30	IL 12 – Dr. A. Venimadhav , IIT Kharagpur <i>“Multiferroic studies on Swedenborgite CaBaCo₄O₇”</i>
17.30 – 18.00	IL 13 – Dr. Pankaj Mishra , IIT(ISM) Dhanbad <i>“Density functional theory of binary colloids”</i>
Session III Venue: Classroom 2	
Session Chair: Dr. Somshubhro Bandyopadhyay , Bose Institute	
17.00 – 17.30	IL 14 – Prof. S. Yarlagadda , SINP Kolkata <i>“Study of long-range orders of hard-core bosons coupled to normal modes in low-dimensional lattices”</i>
17.30 – 18.00	IL 15 - Dr. Arnab Das , IACS Kolkata <i>“Non-equilibrium Signature of Ground-state Quantum Phase Transitions in Highly Excited States”</i>
18.00 – 19.30	Cultural Programme Venue : Auditorium
19.30 – 20.30	Dinner

Wednesday, 1st November 2017

8.00 – 9.00	Breakfast / Registration
Session I Venue: Auditorium	
Session Chair : Dr. C. S. Sundar , IGCAR Kalpakkam	
9.00 – 9.30	IL 16 – Prof. Amlan J. Pal , IACS Kolkata <i>“Scanning Tunneling Spectroscopy and Differential Conductance Images of Some Complex Nanostructures”</i>
9.30 – 10.00	IL 17 – Prof. S. M. Bhattacharya , IOP Bhubaneswar <i>“DNA near its melting point”</i>
10.00 – 10.30	IL 18 – Prof. Kalyan K. Chattopadhyay , Jadavpur University <i>“Graphene sheets, edges, quantum dots and their composites with exciting attributes for some exotic applications”</i>
10.30 – 11.00	IL 19 – Prof. Milan K. Sanyal , SINP Kolkata <i>“Synchrotron Scattering Studies of Quantum Dot Composition Profile”</i>
11.00 – 11.30	Tea Break / Registration
Session II Venue : Auditorium	
Session Chair : Prof. Milan K. Sanyal , SINP Kolkata	
11.30 – 12.00	IL 20 – Prof. M. S. Ramachandra Rao , IIT Madras <i>“Electronic, optical and electrical properties of doped thin films and Nanostructures”</i>
12.00 – 12.30	IL 21 – Prof. Anushree Roy , IIT Kharagpur <i>“III-V Semiconductor Nanowires - Unique Crystal Structure and Electronic Band Structure”</i>
12.30 – 13.15	IL 22 - Prof. D. D. Sarma , IISc Bangalore <i>“Layer-resolved electronic structure of oxide heterostructures using high energy photoelectron spectroscopy”</i>
13.15 – 14.00	Lunch / Registration
14.00 – 15.00	Poster Presentation Venue : Dining Hall SSP021-040 NTF027-053

	CMS001-015
Session III Venue : Auditorium	
Session Chair : Prof. D. D. Sarma , IISc Bangalore	
15.00 – 15.30	IL 23 – Prof. Arghya Taraphder , IIT Kharagpur <i>“Oxide hetero-interfaces: a 2D metal from two insulators and other emergent properties”</i>
15.30 – 16.00	IL 24 – Prof. Kalobaran Maiti , TIFR Mumbai <i>“Hidden order in Fe-based superconductors”</i>
16.00 – 16.30	IL 25 – Prof. Banasree Basu , ISI Kolkata <i>“Electron Vortex Beams”</i>
16.30 – 17.00	Tea Break
Session IV Venue: Lecture Hall 1	
Session Chair: Dr. Dhruba Gupta , Bose Institute	
17.00 – 17.30	IL 26 – Prof. Binay Kumar , Delhi University <i>“Ternary/Quaternary perovskite materials for piezo-/ferroelectric applications”</i>
17.30 – 18.00	IL 27 – Prof. P. P. Sahay , MNNIT Allahabad <i>“Variations in MnO₂ Electrodeposition for Electrochemical Supercapacitors”</i>
Session IV Venue: Lecture Hall 2	
Session Chair: Prof. T. N. Sairam , IGCAR Kalpakkam	
17.00 – 17.30	IL 28 – Dr. K. Asokan , Inter University Accelerator Centre New Delhi <i>“Materials modification by ion beams and their potential applications”</i>
17.30 – 17.45	O1 – NTF074 (Dr. Somnath C. Roy) <i>“Harnessing solar energy with graphene wrapped Cu₂O nanowires”</i>
17.45 – 18.00	Embedded Systems Solutions Demonstration
Session IV Venue: Classroom 1	
Session Chair: Prof. Barun K. Chatterjee , Bose Institute, Kolkata	
17.00 – 17.30	IL 29 – Dr. Ajit Meikap , NIT Durgapur <i>“Disorder and temperature dependence dephasing scattering rate of disordered alloys at low temperature”</i>
17.30 – 18.00	IL 30 – Dr. M. Mahendran , Thiagarajar College of Engineering Madurai <i>“Magneto-Mechanical Properties of the Ferromagnetic Shape Memory Alloys”</i>
Session IV Venue: Classroom 2	
Session Chair: Prof. P. K. Mukhopadhyay , SNBNCBS, Kolkata	
17.00 – 17.30	IL 31 – Dr. Surajit Saha , IISER Bhopal <i>“Long-range Transfer of Magnetic Information via Polar Insulator: Who Carries It?”</i>
17.30 – 16.00	IL 32 – Prof. P. Sujatha Devi , CGCRI Kolkata <i>“Importance of Functional Materials in Energy Harvesting Applications”</i>
18.00 – 19.30	Cultural Programme Venue : Auditorium
19.30 – 20.30	Dinner

Thursday, 2nd November 2017

8.00 – 9.00	Breakfast / Registration
Session I Venue: Auditorium	
Session Chair : Prof. Binay Kumar , Delhi University	
9.00 – 9.30	IL 33 – Prof. G. P. Das , IACS Kolkata <i>“Computational design and functionalization of 2D materials and their heterostructures”</i>

9.30 – 10.00	IL 34 – Prof. Samit K. Ray , SNBNCBS “ <i>Semiconductor Nanowire Heterostructures for Photonic Devices</i> ”
10.00 – 10.30	IL 35 – Prof. Ratnamala Chatterjee , IIT Delhi “ <i>Understanding the low temperature ($T < 45$ K) behavior in the complex $\text{CaMn}_7\text{O}_{12}$ perovskite</i> ”
10.30 – 11.00	IL 36 – Prof. Rajendra Nath Basu , CGCRI Kolkata “ <i>Role of Thin/Thick Film Functional Materials in Developing Solid Oxide Fuel Cell Technology</i> ”
11.00 – 11.30	Tea Break / Registration
Session II Venue : Auditorium	
Session Chair : Prof. Ratnamala Chatterjee , IIT Delhi	
11.30 – 12.00	IL 37 – Prof. Pushan Ayyub , TIFR Mumbai “ <i>Understanding Size Effects: Size as a state variable</i> ”
12.00 – 12.30	IL 38 – Prof. Aditi Sen De , HRI Allahabad “ <i>Static and dynamical quantum correlations in phases of an alternating field XY model</i> ”
12.30 – 13.00	IL 39 – Prof. Chandrabhas Narayana , JNC SAR Bangalore “ <i>Pressure Induced Topological Transitions: Developing new tools to detect</i> ”
13.00 – 14.00	Lunch / Registration
14.00 – 15.00	Poster Presentation Venue : Dining Hall SSP041-058 NTF054-080 CMS015-030
Session III Venue : Auditorium	
Session Chair : Prof. Priya Mahadevan , SNBNCBS	
15.00 – 15.30	IL 40 – Prof. Prafulla K. Jha , MS University of Baroda “ <i>A DFT study on the Bio-conjugated two dimensional materials and their applications</i> ”
15.30 – 16.00	IL 41 – Prof. Sanjay Kumar , BHU Varanasi “ <i>Statistical Mechanics of DNA: Theory and Simulations</i> ”
16.00 – 16.30	IL 42 – Prof. Sumathi Rao , HRI Allahabad “ <i>Spin mode switching in the quantum Hall effect</i> ”
16.30 – 17.00	Tea Break
Session IV Venue: Lecture Hall 1	
Session Chair: Dr. R. Thangavel , IIT (ISM) Dhanbad	
17.00 – 17.30	IL 43 – Prof. P.M.G. Nambissan , SINP Kolkata “ <i>Structural Defects Identification through Positron Annihilation Process in Nanocrystalline LaFeO_3 during Substitution by Alkaline Earth Cations</i> ”
17.30 – 17.45	O2 – SSP035 (Dr. Sujoy Saha) “ <i>Structural and magnetic Properties of $\text{La}_{2-x}\text{Bi}_x\text{NiMnO}_6$</i> ”
17.45 – 18.00	O3 – CMS005 (Dr. Rajyavardhan Ray) “ <i>Investigations into the spin interactions and multiplet spectrum of the single molecule magnets $\text{Ln}_2@C80$</i> ”
Session IV Venue: Lecture Hall 2	
Session Chair: Dr. Achintya Singha , Bose Institute	
17.00 – 17.30	IL 44 – Dr. Amit Chakraborty , NIT Durgapur “ <i>Transition Metal Oxide And Sulphide Nanostructures As Multifunctional Material For Energy Application</i> ”
17.30 – 18.00	IL 45 – Dr. Soumya Dutta , IIT Madras

	<i>"Making of Nanometer Thin Suspended Bridge on Chip"</i>
Session IV Venue: Classroom 1	
Session Chair: Dr. G. Mangamma , IGCAR Kalpakkam	
17.00 – 17.30	IL 46 – Prof. K.R.S. Priolkar , Goa University <i>"Antiferromagnetism in Cubic Antiperovskites"</i>
17.30 – 17.45	O4 – NTF057 (Dr. Dwipesh Majumder) <i>"Composite Fermion - Chern Simon theory in partially polarized fractional Quantum Hall State"</i>
17.45 – 18.00	O5 – SSP004 (Dr. Paramita Dutta) <i>"Thermoelectric properties of a ferromagnet – superconductor hybrid junction: Interplay of barrier, polarization, and Rashba spin orbit interaction"</i>
Session IV Venue: Classroom 2	
Session Chair: Prof. Sanjay Kumar , BHU Varanasi	
17.00 – 17.30	IL 47 – Prof. Priya Mahadevan , SNBNCBS <i>"Quantum confinement: A route to enhance the Curie temperature of Mn doped GaAs"</i>
17.30 – 17.45	O6 – NTF079 (Dr. D. De) <i>"Dependence of Exchange Bias on Interparticle Interaction"</i>
17.45 – 18.00	O7 – NTF058 (Dr. Sachindranath Das) <i>"Study on Opto-electronic Properties of Hybrid Perovskite Crystal"</i>
18.00 – 19.30	Cultural Programme Venue : Main Auditorium
19.30 – 20.30	Dinner

Friday, 3rd November 2017

8.00 – 9.00	Breakfast / Registration
Session I Venue: Auditorium	
Session Chair : Prof. G. P. Das , IACS	
9.00 – 9.30	IL 48 – Prof. Pratap Raychaudhuri , TIFR Mumbai <i>"Microscopic origin of the superconductor to insulator transition in very thin NbN films"</i>
9.30 – 10.00	IL 49 – Prof. Indrani Bose , Bose Institute Kolkata <i>"Dynamical Criticality in Cell Differentiation"</i>
10.00 – 10.30	IL 50 – Prof. Prabhat Mandal , SINP Kolkata <i>"Titanic magnetoresistance and signature of non-degenerate Dirac nodes in ZrSiS"</i>
10.30 – 11.00	IL 51 – Prof. Krishnendu Sengupta , IACS Kolkata <i>"Irradiated graphene in the low frequency regime"</i>
11.00 – 11.30	Tea Break / Registration
Session II Venue : Auditorium	
Session Chair : Prof. Pratap Raychaudhuri , TIFR Mumbai	
11.30 – 12.10	IL 52 – Prof. P. V. Satyam , IOP Bhubaneswar <i>"Electron Microscopy for Studying Thin film Surface and Interfaces"</i>
12.10 – 12.40	IL 53 – Prof. Ashish Garg , IIT Kanpur <i>"Excellent Electrical Fatigue Resistance of P(VDF-TrFE) Thin Films with Improved Ferroelectric and Piezoelectric Properties for Device Applications"</i>
12.40 – 13.10	IL 54 – Dr. Amitabha Das , BARC Mumbai <i>"Neutron diffraction study of frustrated magnetic materials"</i>
13.10 – 14.00	Lunch
Session III Venue: Lecture Hall 1	

Session Chair: Prof. Swapan K. Saha , Bose Institute Kolkata	
14.00 – 14.30	IL 55 – Prof. P. K. Mukhopadhyay , SNBNCBS Kolkata <i>“Effect of grain growth inhibitor in magnetoelastic behaviour of FINEMET melt spun ribbons”</i>
14.30 – 14.45	O8 – SSP055 (Dr. Kumar Brajesh) <i>“Development of strategies for low temperature processing of high performance eco-friendly piezoelectric ceramics (BCT-BZI) using additives”</i>
14.45 – 15.00	O9 – NTF031 (Dr. Supratim Maity) <i>“Enhanced field emission from ZnO and amorphous carbon nanotube hybrid structure”</i>
15.00 – 15.30	IL 56 – Dr. Debnarayan Jana , University of Calcutta <i>“Electronic and Optical Properties of doped Graphene and Silicene System: A first principles Study”</i>
16.00 – 16.30	Tea Break
Session III Venue: Lecture Hall 2	
Session Chair: Prof. P. V. Satyam , IOP Bhubaneswar	
14.00 – 14.30	IL 57 – Prof. Chiranjib Mitra , IISER Kolkata <i>“Surface enhanced topological transport in Topological Insulators by tuning the chemical potential”</i>
14.30 – 15.00	IL 58 – R. Thangavel , IIT (ISM) Dhanbad <i>“Recent trends and challenges for next generation high efficiency solar energy materials”</i>
15.00 – 15.15	O10 – NTF075 (Dr. Binay Bhusan) <i>“Effect of nanoparticles on the nonlinear optical response of polydiacetylene nanostructure”</i>
15.15 – 15.30	O11 – SSP045 (Dr. P. Kour) <i>“Tuning of Dielectric and Impedance Properties of Nd Doping PZT Nanoceramics”</i>
15.30 – 16.00	IL 59 – Prof. Dipali Banerjee , IEST Shibpur <i>“Composite Material for Thermoelectric Application”</i>
16.00 – 16.30	Tea Break
Session III Venue: Classroom 1	
Session Chair: Prof. Ashish Garg , IIT Kanpur	
14.00 – 14.30	IL 60 – Prof. P. K. Bajpayi , Guru Ghasidas Vishwavidyalaya, Bilaspur <i>“Synergic effect of low energy ion beams on structural and phonon properties of ferroelectrics and multiferroics”</i>
14.30 – 15.00	IL 61 – Prof. Sangam Banerjee , SINP Kolkata <i>“Origin and common aspects of magnetism in nano-form of nonmagnetic bulk materials: Oxides carbon and metals”</i>
15.00 – 15.15	O12 – SSP050 (Dr. T. Badapanda) <i>“Impedance spectroscopy analysis of Samarium modified Bismuth Sodium Titanate ceramic”</i>
15.15 – 15.30	O13 – CMS006 (Dr. R. K. Mishra) <i>“Computation of the Excess Entropy and Associated Properties in metallic melts”</i>
15.30 – 16.00	IL 62 – Dr. Sudipta Bandyopadhyay , University of Calcutta <i>“Metamagnetism in Rare Earth Metal Based Cuprate Francisites”</i>
16.00 – 16.30	Tea Break
Session III Venue: Classroom 2	
Session Chair: Dr. Soumen Roy , Bose Institute	
14.00 – 14.30	IL 63 – Dr. Anurag Srivastava , ABV-IIITM Gwalior <i>“2D Materials: Future Toxic Gas Sensors”</i>

14.30 – 14.45	O14 – SSP059 (Dr. A. Bhattacharyya) “Broken time-reversal symmetry probed by muon spin relaxation in the caged type superconductor $Lu_5Rh_6Sn_{18}$ ”
14.45 – 15.00	O15 – SSP041 (Dr. Anup Pradhan Sakhya) “Origin of the optical anisotropy and the electronic structure of Ru- based double perovskite oxides: DFT and XPS study”
15.00 – 15.15	O16 – SSP053 (Dr. Sadhan Chanda) “Magnetic ordering and conduction mechanism of different electroactive regions in Lu_2NiMnO_6 ”
15.15 – 15.45	IL 64 – Dr. Chhayabrita Maji , IACS Kolkata “Role of crystal structure in unusual exchange bias effect of Ni-Mn-Sn alloys”
16.00 – 16.30	Tea Break
16.30 – 18.00	Valedictory Session
18.00 onwards	Dinner