International Workshop on

Recent Advancements in Magnetism and Magnetic Materials 2024

(i-ReAd MAGMA 24)

(Online)

26 – 30, November 2024

Organized by
Department of Physics
School of Advanced Sciences
VIT-AP University, Amaravati, Andhra Pradesh – 522 237, India

Program schedule

Day 1 (Tuesday, 26 Nov 2024)	
10:00 – 10:45	Inauguration ceremony
10:45 – 11:45	Keynote speaker (D1IT1) **Prof. John Philip** Emeritus Professor, Department of Physics. Cochin University of Science and Technology, Kochi and Former Associate Director at the Indira Gandhi Centre for Atomic Research, Department of Atomic Energy, Kalpakkam, Chennai, India *Synthesis, capping and applications of superparamagnetic magnetic nanoparticles*
11:45 – 12:30	Invited Talk – 2 (D1IT2) **Prof. Venkateswaran C** Department of Nuclear Physics, University of Madras, Chennai *The Effect of Epitaxial and Non-Epitaxial Substrates on the Magnetic Properties of GdMnO3 films and the Influence of Mn in ferroelectric* $Bi_{0.5}Na_{0.5}TiO_3$
12:30 – 14:00	**Break**
14:00 – 14:50	Foreign Invited Talk – 1 (D1ITA1) **Prof. Nicola Morley** University of Sheffield, UK *Materials Informatics for Magnetic Materials Discovery*
15:00 – 16:20	**Day 1: Oral Presentation (Parallel session)**
	Parallel Session 1 Paper IDs (16, 61, 52, 32, 49, 15, 41)
	Parallel Session 2 Paper IDs (51, 55, 24, 56, 78, 81, 54)
	Parallel Session 3 Paper IDs (91, 33, 26, 98, 48, 109, 79)

16:30 – 17:20	Foreign Invited Talk – 2 (D1ITA2) **Prof. Hari Srikanth** Department of Physics, University of South Florida, Tampa FL 33620, USA *Thermally generated spin transport and spin Seebeck effect in thin film heterostructures*
Day 2 (Wednesday, 27 November 2024)	
10:00 – 10:50	Invited Talk – 3 (D2IT3) **Prof. Perumal Alagarsamy** Department of Physics, Indian Institute of Technology Guwahati, Guwahati – 781 039, India *Tunable entropy systems: Ambient synthesis and role of chemical disorder for harvesting energy and future magnetoelectronics*
10:50 – 11:40	Invited Talk – 4 (D2IT4) **Prof. Murugavel P** Department of Physics, IIT, Madras *Spin Reorientation, Exchange-bias Effect and Magnetic Switching Studies in Modified Rare-earth Chromite System*
11:40 – 12:30	Invited Talk – 5 (D2IT5) **Dr. Sujit Das** Materials Research Centre, Indian Institute of Science, Bangalore, Karnataka, India *Advances of polar and multiferroic topology*
12:30 – 14:00	**Break**
14:00 – 14:50	Foreign Invited Talk – 3 (D2ITA3) **Prof. Del Atkinson** Department of Physics, Durham University, UK *Magnetic Thin-Films and Multilayers: The Role of Interfaces and Bulk Film Variations on Magnetic and Spintronic Behaviour*

15:00 – 16:20	**Day 2: Oral Presentation (Parallel session)**
	Parallel Session 1 Paper IDs (10, 20, 27, 100, 31, 60, 62)
	Parallel Session 2 Paper IDs (47, 50, 40, 68, 97, 89, 111)
	Parallel Session 3 Paper IDs (92, 99, 29, 104, 35, 3)
16:30 – 17:20	Invited Talk – 6 (D2IT6) **Prof. Sundarakannan B** *Department of Physics, Manonmaniam Sundaranar University, Tirunelveli - 627012* *Absorption of Positive Magnetostriction in CFO-LCO Composites and ME Coefficient in Self-composite CFO-NBT Particulates*
Day 3 (Thursday, 28 November 2024)	
10:00 – 10:50	Invited Talk – 7 (D3IT7) **Prof. Subhash Thota** Department of Physics, Indian Institute of Technology Guwahati, Assam, India Frustration Dirven Magneto-Structural Quantum Phases in Spinels
10:50 – 11:40	Invited Talk – 8 (D3IT8) **Prof. Koteswara rao B** Department of Physics, Indian Institute of Technology, Tirupati, India *Unconventional Magnetism in Highly Frustrated Spin Chains*
11:40 – 12:30	Invited Talk – 9 (D3IT9) **Prof. Nirmala N** Associate Professor, Department of Physics, IIT, Madras, India *Studies on magnetocaloric materials: Effect of synthesis conditions on microstructure and magnetism*
12:30 – 14:00	**Break**

14:00 – 14:50	Invited Talk – 10 (D3IT10) **Prof. Balakumar S** National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai *Enhanced Microwave Absorption Using Magnetic Nanostructures and Functional Carbon Nanoarchitectures*
15:00 – 16:20	**Day 3: Oral Presentation (Parallel session)**
	Parallel Session 1 Paper IDs (7, 11, 14, 44, 5, 77, 112)
	Parallel Session 2 Paper IDs (46, 57, 58, 67, 73, 110)
	Parallel Session 3 Paper IDs (59, 22, 103, 82, 88, 108, 9)
16:30 – 17:20	Foreign Invited Talk – 4 (D3ITA4) **Prof. Marcelo Knobel** Instituto de Física Gleb Wataghin, UNICAMP, Campinas, Brazil *Basic concepts of Nanomagnetism*
End of Day 3	
Day 4 (Friday, 29 November 2024)	
10:00 – 10:50	Invited Talk – 11 (D4IT11) **Prof. R. Justin Joseyphus** Department of Physics, National Institute of Technology, Tiruchirappalli 620015, Tamil Nadu, India *Structure and Magnetic Properties of Fe-based Alloys Obtained Through Instant Chemical Reduction*
10:50 – 11:40	Invited Talk – 12 (D4IT12) **Prof. Pankaj Poddar** Senior Scientist National Chemical Laboratory, Pune 411 008, India *Nanomagnetism: spin polarized electron transport, memories, rare earth free hard magnets, and nanomedicines*

11:40 – 12:30	Invited Talk – 13 (D4IT13) **Prof. Gokul Raj** Department of Physics, Puducherry University, Puducherry, India *Phase Analysis And Crystallization Kinetics of Rare Earth Magnetic Garnets (RE3Fe5O12) For High Frequency Applications*
12:30 – 14:00	**Break**
14:00 – 14:50	Foreign Invited Talk – 5 (D4ITA5) **Prof. RNDr. Marián Reiffers,** DrSc. Institute of Experimental Physics, Slovak Republic *Searching For New Materials With Application Options*
15:00 – 16:20	**Day 4: Oral Presentation (Parallel Session)**
	Parallel Session 1 Paper IDs (34, 18, 63, 21, 96, 28)
	Parallel Session 2 Paper IDs (2, 36, 37, 38, 19, 69, 23)
	Parallel Session 3 Paper IDs (94, 102, 80, 25, 83)
16:30 – 17:20	Foreign Invited Talk – 6 (D4ITA6) **Prof. Andris Bakuzis** Institute of Physics, Federal University of Goiás, Goiânia, Brazil *Biomimetic Hybrid Magnetic Nanocarrier for MRI-Guided and Real-Time Monitoring of Cancer Thermal Therapy*
End of day 4	
Day 5 (Saturday, 30 November 2024)	
10:00 – 10:50	Invited Talk – 14 (D4IT14) **Prof. A. Taraphder** Department of Physics, Indian Institute of Technology Kharagpur, India *Metamagnetism from Correlation*

10:50 – 11:40	Foreign Invited Talk – 7 (D5ITA7) **Dr. Carlos Romero-Muñiz** Física de la Materia Condensada, Universidad D Sevilla, Spain. *Computationally Driven Synthesis and Optimization of Magnetocaloric Materials*
11:50 – 13:30	**Day 5: Oral Presentation (Parallel Session)**
	Parallel Session 1 Paper IDs (17, 43, 53, 70, 72)
	Parallel Session 2 Paper IDs (93, 71, 74, 76, 84)
13:30 – 14:30	**Break**
14:30 – 15:20	Invited Talk – 8 (D5IT15) **Prof. Jyoti Ranjan Mohanty** Department of Physics, IIT Hyderabad *Anisotropy Engineered Magnetic Thin Film For Possible Application*
15:20 – 15:45	Closing ceremony and announcement of prizes/awards/Feedback