

Detailed Schedule of Talks, ICMCB-2015

Day - 1: 28.02.15 (Saturday)

Time	Venue	Talk Details
10.30 – 11.30	L17	Plenary Talk - 1 , Piero Colli Franzone, University of Pavia, Italy Mathematical and numerical modeling of the cardiac electro-mechanical coupling: effects of mechanical feedbacks on the bioelectric activity
11.30 – 12.30	L17	Plenary Talk - 2 , Vitaly Volpert, University of Lyon 1, France Nonlocal reaction-diffusion equations in biological applications
12.30 – 13.10	L17	Invited Talk - 1 , Indrani Bose, Bose Institute, Kolkata Cell differentiation: non-genetic heterogeneity and criticality
14.30 – 16.10		Technical Session - 1
14.30 – 15.10	L11	Invited Talk - 2 , Indira Ghosh, JNU, Delhi Modeling reveals signaling plasticity in a bi-bodular assembly of CD40 receptor activated kinases
15.10 – 15.30	L11	Contributed Talk - 1 , Abhinav Sharma, IIT Jodhpur Graph theoretical model of drug networks by mutual association of target, chemical and side effect profiles
15.30 – 15.50	L11	Contributed Talk - 2 , Ankita Deb, Tezpur University Understanding the structure and dynamics of the pharmacophore region of alpha Fetoprotein with anti-breast-cancer properties using molecular dynamic simulations
15.50 – 16.10	L11	Contributed Talk - 3 , Rakesh Kanji, IIT Jodhpur Role of secondary interactions of targets in specifying phenotypic side effects of drugs
14.30 – 16.10		Technical Session - 2
14.30 – 15.10	L12	Invited Talk - 3 , Antoine Perasso, Universit de Franche-Comt, France Asymptotic properties for an infection-load structured epidemiological model with exponential growth
15.10 – 15.30	L12	Contributed Talk - 4 , Balram Dubey, BITS, Pilani Role of mathematical modeling in the management of a wetland park
15.30 – 15.50	L12	Contributed Talk - 5 , Prashant K. Srivastava, IIT Patna A Stochastic differential equation model of HIV primary infection
15.50 – 16.10	L12	Contributed Talk - 6 , Anuj Dubey, IIT Patna Understanding the impact of control interventions on disease dynamics
14.30 – 16.10		Technical Session - 3
14.30 – 15.10	L13	Invited Talk - 4 , Sandip Banerjee, IIT Roorkee Mathematical modeling of malignant brain tumor with T11 target structure as a potent immune stimulator
15.10 – 15.30	L13	Contributed Talk - 7 , Abhijit Sutradhar, IIT Kharagpur Significance of Joule heating and external magnetic field on peristaltic transport of casson fluid in a permeable microvessel
15.30 – 15.50	L13	Contributed Talk - 8 , Jyotirmoy Rana, IIT Kharagpur Modelling the oxygen transport in a cylindrical systemic capillary and its surrounding tissue region in hyperbaric environment
15.50 – 16.10	L13	Contributed Talk - 9 , Dinesh C. Haobijam, JNU, Delhi Noise induced amplitude death in neuron dynamics
16.30 – 17.30	L17	Plenary Talk - 3 , Nicholas A. Hill, University of Glasgow, UK Modelling the pulmonary circulation
17.30 – 18.10	L17	Invited Talk - 5 , Somdatta Sinha, IISER Mohali A graph theoretic analysis of protein structures
18.10 – 19.00		Poster Session (Venue L16 Foyer)

Posters
Poster - 1 , Devavrat Thosar, Vishwakarma Institute of Technology Optimization of metabolic networks: Optimal elementary ux modes
Poster - 2 , Garima Singh, National Institute of Technology, Rourkela Identification of germline specific Piwi-interacting small non-coding RNAs in ovarian cancer
Poster - 3 , Indrani Ray, ISI Kolkata A three tier model to show the immunometabolic aspects of obesity
Poster - 4 , Jaidip Jagtap, IIT Kanpur Probing with various analysis tools for precancer discrimination in human cervical tissue sections
Poster - 5 , Jyoti Roy, NIT Rourkela Combinatorial impact of SNPs & regulatory RNAs in the aetiology of late onset Alzheimers disease
Poster - 6 , Md.Zubbair Mallik, Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi
Poster - 7 , Megha Singh, IIT Jodhpur Classification of schizophrenic and healthy subjects using graph theoretic properties of brain functional networks
Poster - 8 , Pratim Chakraborti, Apt Software Avenues Pvt Ltd, Kolkata A Graph DB Approach in designing Metabolic Pathways at the Molecular Level
Poster - 9 , Priyanka Arora, Amity University Role of Recruitment Rate on In uenza A(H1N1) Epidemic Model with Vaccination
Poster - 10 , Rahul Badhwar, IIT Jodhpur Robustness and controllability of C. elegans neuronal network
Poster - 11 , Rahul C.N, BITS Pilani Structural Modelling of Plasmodium vivax blood stage Serine Repeat Antigens(PvSERA)
Poster - 12 , Rowthu Vijayakrishna, IIT Kanpur A Comparison of Image Segmentation Algorithms for B-Mode Ultrasound images
Poster - 13 , Ruturaj Sawant, Vishwakarma Institute of Technology Computing toggle switch for a synthetic gene circuit: M.I.L.P. Application
Poster - 14 , Saurabh Kumar Sharma, JNU Synchronization of coupled genetic oscillators via miRNA
Poster - 15 , Seema Devi, IIT Kanpur Detecting cervical cancer progression through extracted intrinsic fluorescence and principal component analysis
Poster - 16 , Shantanu Tandon, MNNIT Allahabad A Brain Mapping Investigation of Autism and Alzheimers disease
Poster - 17 , Surbhi Gupta, Amity University Effect of Pollution on Dynamics of SIR Model with Treatment
Poster - 18 , Ujjwal Roy, Jadavpur University Effect of salinity and temperature on plankton dynamics of Hooghly-Matla estuarine system, India

Day - 2: 01.03.15 (Sunday)

Time	Venue	Talk Details
09.30 – 10.30	L17	Plenary Talk - 4 , Luca Franco Pavarino, University of Milano, Italy Scalable parallel solvers for cardiac electromechanical models
10.30 – 11.10	L17	Invited Talk - 6 , Santanu Ray, Visva-Bharati University, West Bengal Concept of robustness of ecological system through network analysis and its comparative study on Sundarban mangrove ecosystem
11.30 – 13.10		Technical Session - 4
11.30 – 12.10	L11	Invited Talk -7 , Sanjay Jain, University of Delhi Self-organization in models of cell growth and division
12.10 – 12.30	L11	Contributed Talk - 10 , R. Swaminathan, IIT Guwahati Modeling the influence of crowding macromolecules on an enzymatic reaction
12.30 – 12.50	L11	Contributed Talk - 11 , Raaisa, IIT Delhi Shannon entropy based measure for finding origin of DNA replication in Plasmodium
12.50 – 13.10	L11	Contributed Talk - 12 , Mary Dutta, Tezpur University Amyloid peptide folding simulation to trace out the seed structure responsible for aggregation
11.30 – 13.10		Technical Session - 5
11.30 – 12.10	L12	Invited Talk - 8 , Anirban Banerjee, IISER Kolkata Phylogenetic study of metabolic networks by graph spectra
12.10 – 12.30	L12	Contributed Talk - 13 , Bharti Singhal, Deshbandhu College, Delhi Functional annotation of the hypothetical proteins of Neisseria meningitidis H44/76
12.30 – 12.50	L12	Contributed Talk - 14 , Dimpal Nyayanit, NCL, Pune Mathematical modeling of combinatorial regulation suggest explanation for apparently positive miRNA effects
12.50 – 13.10	L12	Contributed Talk - 15 , Manish Dutt, ICGB, New Delhi Novel and unique domains in aminoacyl-tRNA synthetases from human fungal pathogens Aspergillus niger, Candida albicans and Cryptococcus neoformans
11.30 – 13.10		Technical Session - 6
11.30 – 12.10	L13	Invited Talk - 9 , N. Bujurke, Karnatak University Stability of two dimensional collapsible channel flow at high Reynolds number using interactive boundary layer theory
12.10 – 12.30	L13	Contributed Talk - 16 , M. A. Khanday, University of Kashmir Variational finite element approach to study the thermal stress in multi-layered human head
12.30 – 12.50	L13	Contributed Talk - 17 , Amit Mondal, Jadavpur University Electroosmotic flow and heat transfer in micro-vessels
12.50 – 13.10	L13	Contributed Talk - 18 , Girija Bai H, Sathyabama University CFD simulation of density variation in arteries affected by multiple stenoses
14.30 – 16.10		Technical Session - 7
14.30 – 15.10	L11	Invited Talk - 10 , Sunita Gakkhar, IIT Roorkee Complexity in ecological systems
15.10 – 15.30	L11	Contributed Talk - 19 , A. Singaram, VIT University Mathematical modelling of corruption control in the society
15.30 – 15.50	L11	Contributed Talk - 20 , E. Sebastian, Auxilium College Dynamical behaviors of a discrete-time SVIR epidemic model with saturated incidence rate and varying total population size
15.50 – 16.10	L11	Contributed Talk - 21 , R. Pathak, University of Lucknow Conservation of forestry biomass with the use of alternative resource

Time	Venue	Talk Details
14.30 – 16.10		Technical Session - 8
14.30 – 14.50	L12	Contributed Talk - 22 , Onkar Nath, Deshbandhu College, Delhi Structural homology modeling of aspartatetransaminase [<i>Bacillus Halodurans</i> c-125]
14.50 – 15.10	L12	Contributed Talk - 23 , N. Choudhary, BITS, Pilani Analysis of a model for the dynamics of prion in the presence of chaperone
15.10 – 15.30	L12	Contributed Talk - 24 , Sanjay Kumar, Deshbandhu College, Delhi Rewiring of interconnected hubs in transcriptional regulatory network of mycobacterium tuberculosis
15.30 – 15.50	L12	Contributed Talk - 25 , S. Puntambekar, NCL, Pune Analysis of sumoylation system using mathematical modeling
15.50 – 16.10	L11	Contributed Talk - 26 , T. B. Masood, IISc Bangalore Extraction and visualization of molecular channels
14.30 – 16.10		Technical Session - 9
14.30 – 14.55	L13	Invited Talk - 11 , S. K. Majumdar, Raja Ramanna Centre for Advanced Technology, Indore Diagnosis of cancer using optical spectroscopy - the role of statistical pattern recognition
14.55 – 15.20	L13	Invited Talk - 12 , V. Krishnan, TIFR, Bangalore
15.20 – 15.45	L13	Invited Talk - 13 , Naren Naik, IIT Kanpur
15.45 – 16.10	L13	Invited Talk - 14 , N. Ghosh, IISER Kolkata Multifractal tissue scattering properties in Born approximation: novel biomarker for precancer detection
16.30 – 17.30	L17	Plenary Talk - 5 , Ajit P. Yoganathan, Wallace H. Coulter School of Biomedical Engineering, USA Computational challenges in cardiovascular fluid mechanics
17.30 – 18.10	L17	Invited Talk - 15 , Debasish Roy, IISc Bangalore

Day - 3: 02.03.15 (Monday)

Time	Venue	Talk Details
09.30 – 10.30	L17	Plenary Talk - 6 , Frank Natterer, Universitt Mnster, Mnster Imaging in medicine, science, and industry
10.30 – 11.10	L17	Invited Talk - 16 , Girija Jayaraman, The Univ. of the West Indies, WI Modelling upper ocean ecosystem dynamics
11.30 – 13.10		Technical Session - 10
11.30 – 12.10	L11	Invited Talk - 17 , Anuj Mubayi, Arizona State University, USA Disentangling complex dynamics of vector-borne diseases via modeling methods
12.10 – 12.30	L11	Contributed Talk - 27 , Moitri Sen, IISC Bangalore Dynamics of an eco-epidemic model where the spread of the disease depends on the generalized predator
12.30 – 12.50	L11	Contributed Talk - 28 , K. S. Jatav, H G Central University, MP Eco-epidemiological pest management SEIN model with pest-dependent consumption and impulsive control strategy
12.50 – 13.10	L11	Contributed Talk - 29 , A. Yadav, IIT Patna Comparative study of various treatment strategies on an infectious disease model in presence of information
11.30 – 13.10		Technical Session - 11
11.30 – 12.10	L12	Invited Talk - 18 , Mini Ghosh, VIT University, Chennai A Study on effect of biological control in transmission dynamics of malaria
12.10 – 12.30	L12	Contributed Talk - 30 , Preeti Arya, CSIR-Institute, Palampur Tracing the evolution of apoptosis-related domain in plants
12.30 – 12.50	L12	Contributed Talk - 31 , P. S. Mandal, NIT Patna Dynamical behavior of an one-prey two-predator model with random perturbations
12.50 – 13.10	L12	Contributed Talk - 32 , P. Misra, Maharana Pratap Govt. PG College Stability analysis for a stage-structured predator-prey model with disease in the prey
11.30 – 12.10		Technical Session - 12
11.30 – 11.50	L13	Contributed Talk - 33 , N. K. Ranjit, Techno India, Kolkata Peristaltic mechanism of blood ow through non-uniform vessels
11.50 – 12.10	L13	Contributed Talk - 34 , M. P. Moopnar, NIT Warangal Mathematical model of ow in a doubly constricted channel with permeability
12.10 – 12.30	L13	Contributed Talk - 35 , S. M. Varghese, Sathyabama University Environmental and cavity effects on canine sniffing using CFD
12.30 – 12.50	L13	Contributed Talk - 36 , M. Panda, IIIT, Jabalpur Bio-convection in a planar layer of isotropically scattering phototactic algae exposed to both diffuse and non-diffuse (collimated) light intensity
12.50 – 13.10	L13	Contributed Talk - 37 , G. C. Shit, Jadavpur University Prediction of plaque formation in a microvascular system: A theoretical study

Time	Venue	Talk Details
14.30 – 16.10		Technical Session - 13
14.30 – 15.10	L11	Invited Talk - 19 , Chetan Gadgil, NCL, Pune Stochastic gene expression models
15.10 – 15.30	L11	Contributed Talk - 38 , J. Justin, St. Joseph College, Kerala Noise adaptive computation of decay control parameter in non local means filter for MR image denoising
15.30 – 15.50	L11	Contributed Talk - 39 , Anupam Jain, IIT Jodhpur A copy-mutate model for culinary evolution of Indian cuisine
15.50 – 16.10	L11	Contributed Talk - 40 , Jasleen Gundh, JNU Symmetry in Hindmarsh-Rose neuron dynamics
14.30 – 16.10		Technical Session - 14
14.30 – 15.10	L12	Invited Talk - 20 , J. Dhar, ABV-IIITM, M.P. Dynamical behavior of an epidemic model with media coverage, quarantine and isolation in a community with pre-existing immunity
15.10 – 15.30	L12	Contributed Talk - 41 , A. Agrawal, Amity University Modeling the effect of toxicant on the deformity in a subclass of a biological species
15.30 – 15.50	L12	Contributed Talk - 42 , Preeti Dubey, BITS, Pilani An SIR model with nonlinear incidence rate and Holling type III treatment rate
15.50 – 16.10	L12	Contributed Talk - 43 , Shikha Singh, Delhi University Effects of ecological factors on the spread of malaria: A modeling study
14.30 – 16.10		Technical Session - 15
14.30 – 14.55	L13	Invited Talk - 21 , Anup Singh, IIT Delhi Quantitations in CEST-MRI
14.55 – 15.20	L13	Invited Talk - 22 , Kedar Khare, IIT Delhi
15.20 – 15.45	L13	Invited Talk - 23 , R. Trivedi, DRDO, Delhi
15.45 – 16.10	L13	Invited Talk - 24 , P. Sahoo, Siemens, Delhi Quantitative MRI: dynamic contrast enhanced perfusion
16.30 – 17.30	L17	Plenary Talk - 7 , Ezio Venturino, Universit'a di Torino, Italy Preservation of natural resources: modelling the interactions of herbivores and vegetation

Day - 4: 03.03.15 (Tuesday)

Time	Venue	Talk Details
09.30 – 10.30	L17	Plenary Talk - 8 , Yasuhiro Takeuchi, Aoyama Gakuin University, Japan Mathematical modelling of tumor immune system interaction
10.30 – 11.10	L17	Invited Talk - 25 , J. B. Shukla, Internet University for Research, Kanpur Modeling the effect Of climate change on the spread of malaria
11.30 – 12.50		Technical Session - 16
11.30 – 12.10	L11	Invited Talk - 26 , Sitabhra Sinha, IIMSc, Chennai Simple signaling pathways can have memory: Adaptation and sensitization in MAP-kinase cascades in the absence of feedback
12.10 – 12.30	L11	Contributed Talk - 44 , Rajani Raman, SINP, Kolkata Studies on filling-in across blind spot in the light of hierarchical predictive coding of natural images
12.30 – 12.50	L11	Contributed Talk - 45 , H. P. Rani, NIT Warangal Nonlinear Dynamics of natural convective heat transfer in a cubical cavity: stability and route to chaos
11.30 – 12.30		Technical Session - 17
11.30 – 11.50	L12	Contributed Talk - 46 , V. Baudrot, Universit de Franche-Comt, France Inclusion of predator foraging in the dynamic of trophically transmitted parasites
11.50 – 12.10	L12	Contributed Talk - 47 , Mouli Das, ISI Kolkata A proposed framework used in plant metabolome
12.10 – 12.30	L12	Contributed Talk - 48 , Santosh Biswas, Jadavpur University Effect of delay on the dynamics of cannibalistic predator-prey model with disease in predator population
11.30 – 12.50		Technical Session - 18
11.30 – 11.50	L13	Contributed Talk - 49 , N. Sengupta, IIT Bombay Modeling spatio-temporal synaptic drive in the smooth muscle syncytium of urinary bladder
11.50 – 12.10	L13	Contributed Talk - 50 , Ramesh Katta, VNIT Nagpur Influence of heat transfer on the peristaltic transport of Walter's B fluid in an inclined annulus
12.10 – 12.30	L13	Contributed Talk - 51 , Ravikumar K, IISc Bangalore Maxwell stress induced biological cell deformation and stability in an electric field stimulated medium
12.30 – 12.50	L13	Contributed Talk - 52 , S. Acharjee, Inst. Of Advanced Study in S & T Soft sets, soft bitopology and application in prostate cancer risk
12.50 – 13.10	L17	Valedictory Session