Applied Mathematics Day
@ IIT Hyderabad

भारतीय प्रौद्योगिकी संस्थान हैदराबाद
Indian Institute of Technology Hyderabad

Organised by
Department of Mathematics
IIT Hyderabad

❀ Program ❀

09:00–09:15   Welcome

09:15–09:45   Professor C. S. Sastry (Mathematics)

"Nonconvex sparse solvers: Theory and applications"

09:45–10:15   Dr. Aditya Siripuram (Electrical Engineering)

"Discrete Fourier Transform (DFT) computation for signals with structured support"

10:15–10:30   Pappu Kumar Mourya (Mathematics)

"Darcy–Brinkman convection with thermal anisotropic in an inclined porous layer"

10:30–10:45   Sahil Islam (Physics)

"Differential motility leads to intestinal organoid budding"

10:45–11:00   Pindi Haritha (Chemical Engineering)

"Effect of functional anisotropy on local dynamics of functionalized polymer grafted nanoparticles"

11:00–11:30   Coffee Break

11:30–12:00   Dr. Viswanath Chinthapenta (Mechanical And Aerospace Engineering)

"Analytical full field solution for fully debonded anti–crack and domain integral method to extract Stress Intensity Factor"

12:00–12:30   Dr. Anupam Gupta (Physics)

"A mechanochemical framework for somitogenesis"

12:30–13:00   Dr. Arunabha Majumdar (Mathematics)

"A method to adjust for the uncertainty of predicted expression in transcriptome–wide association study"

13:00–14:00   Lunch

14:00–14:30   Dr. Anand Mohan (Chemical Engineering)

"Jeffery–Hamel flow of a new shear–thinning model that approximates viscoplastic materials"

14:30–15:00   Dr. Suhail Rizvi (Biomedical Engineering)

"From discrete to continuum: mathematical modeling of tissue polarity"

15:30–15:45   Soni Prajapati (Physics)

"Effect of background flow on motility–induced phase separation"

15:45–16:00   Suranjita Ganguly (Biomedical Engineering)

"Applied mathematics in imaging the source of brain activity from non–invasive electromagnetic sensing"

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15:30–16:00 Coffee Break

16:00–16:30 Dr. Phanindra Jampana (Chemical Engineering)

"Electrical Resistance Tomography (ERT) Inverse Algorithms : Application to Hy–drocyclone Air Core Diameter Estimation"

16:30–17:00 Dr. N. R. Aravind (Computer Science and Engineering)

"Randomness in algorithms"

17:00–17:30 Dr. P. N. Karthik (Artificial Intelligence)

"Best arm identification with arm erasures"

17:30–18:00 Dr. Anurag Tripathi (Physics)

"Understanding the building blocks of the colour structure of the multi–parton scat–tering amplitudes beyond 3 loops"

18:00–18:30 Coffee and Concluding Remarks