

Collaborative Research Symposium on Mathematics

Participating Institutes

**IIT
Hyderabad**



**University of
Hyderabad**



**BITS Pilani
Hyderabad**



**Mahindra
University**



Symposium Schedule (10:00 - 13:00)

Venue: Lecture Hall Complex - LHC 08 (10.00-12.00)				
Talk	Time	Speaker	University	Title
General Talk 1	10:00 – 10:45	Prof. Ashok Vaikuntam	BITS Hyderabad	Computational Analysis Led Design in Manufacturing Industry
Tea Break (10:45 – 11:15)				
General Talk 2	11:15 – 12:00	Prof C.S. Sastry	IIT Hyderabad	Supervised Learning: Theory and Applications
Parallel Sessions (12:20 – 13:00)				
Venue: Department of Mathematics Building, Ground Floor - Room MA01				
Talk	Time	Presenter	University	Title
Talk 1	12:20 – 12:40	Ms. Padmaja Yinukula	Mahindra University	Fractional Partial Differential Equations for Multiplicative Noise Removal
Talk 2	12:40 – 13:00	Mr. Pankaj Patel	BITS Hyderabad	The Mordell-Weil rank and 2 Selmer rank of a family of elliptic curves
Venue: Department of Mathematics Building, Ground Floor - Room MA02				
Talk	Time	Presenter	University	Title
Talk 1	12:20 – 12:40	Mr. Vidushi Tripathi	Mahindra University	Controllability of Fractional Differential Systems
Talk 2	12:40 – 13:00	Mr. K. Ashok Kumar	IIT Hyderabad	Shape Variations via Polarizations
Lunch Break (13:00 – 14:15)				

Symposium Schedule (12:20 - 15:20)

Parallel Sessions (14:20 – 15:20)

Venue: Department of Mathematics Building, Ground Floor - Room MA01

Talk	Time	Presenter	University	Title
Talk 3	14:20 – 14:40	Mr. A. Sreedhar	Mahindra University	RBF based BDF methods for stiff differential equations
Talk 4	14:40 – 15:00	Ms. Ashwini Soundararajan	BITS Hyderabad	Transient analysis of renewal input multi server queuing model with infinite buffer
Talk 5	15:00 – 15:20	Mr. Soumak Nag	University of Hyderabad	Asymptotic behavior of an age-structured SIS model with nonlinear force of infection

Venue: Department of Mathematics Building, Ground Floor - Room MA02

Talk	Time	Presenter	University	Title
Talk 3	14:20 – 14:40	Mr. Karthik Tathe	BITS Hyderabad	Generalised stochastic process
Talk 4	14:40 – 15:00	Mr. Atanu Manna	IIT Hyderabad	Existence of a non-radial solution for a semilinear elliptic equation on hyperbolic space
Talk 5	15:00 – 15:20	Ms. Dimple Satya Sri Dadi	University of Hyderabad	Oscillatory Stokes Flow Past a Sphere with Slip Boundary Conditions

Tea Break (15:20 – 15:40)

Symposium Schedule (15:40 - 17:30)

Parallel Sessions (15:40 – 17:30)

Venue: Department of Mathematics Building, Ground Floor - Room MA01

Talk	Time	Presenter	University	Title
Talk 6	15:40 – 16:00	Mr. Shubham Upadhyay	Mahindra University	Limiter based entropy stable WENO scheme for relativistic hydrodynamic equations
Talk 7	16:00 – 16:20	Mr. Sayantan Ghosh	BITS Hyderabad	Observational status of late time acceleration from Mathematics to Physics
Talk 8	16:20 – 16:40	Mr. Sumit Mishra	Mahindra University	RBF-HFD method for elliptic PDE problems with optimal shape parameter selection
Talk 9	16:40 – 17:00	Ms. Madhumita Nath	Mahindra University	Multiquadric based RBF-HFD approximation formulas and convergence properties
Talk 10	17:00 – 17:20	Mr. Aniruddha Saha	IIT Hyderabad	Free resolutions of symmetric algebras of certain classes of ideals of deviation 3

Venue: Department of Mathematics Building, Ground Floor - Room MA02

Talk	Time	Presenter	University	Title
Talk 6	15:40 – 16:00	Mr. Saurabh Mishra	IIT Hyderabad	A p-value aggregation approach to robust gene–environment interaction testing
Talk 7	16:00 – 16:20	Ms. Akankshya Sahu	BITS Hyderabad	Gallai's path decomposition of levigraph
Talk 8	16:20 – 16:40	Ms. Dwipanjana Shit	IIT Hyderabad	A class of Drinfeld A -modules of rank 3 with surjective Galois representations
Talk 9	16:40 – 17:00	Mr. Puspendu Nag	IIT Hyderabad	2*2 Block AN-Operators
Talk 10	17:00 – 17:20	Mr. Akash Sen	IIT Hyderabad	Introduction to Generative AI
Vote of Thanks	17:20 – 17:30	Vote of Thanks followed by High Tea		