Objectives

To Inspire, motivate researchers and students working in the areas of applied mathematics and its recent applications.

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Schedule ICRAAM

Day 1: February 20, 2019 (Wednesday)

Time	Talk	Speakers
First Session: Session Chair: Moiz ud Din Khan		
08:30- 9:00	**Registration**	
09:00 -09:45	***Stability and Control of Hybrid Impulsive and Switched Dynamical Systems***	**Naim Bajcinca** *TU Kaiserslautern, Germany*
9:45 - 10: 25	***Theoretical Study of Thermal and Radial Effects in Liquid Chromatography***	**Shamsul Qamar** *COMSATS University Islamabad*
10:25 – 11:15	**Opening Ceremony**	
11:15 - 11:45	**Tea & Refreshment**	
Morning Parallel Session I Session Chair: Zaighum Zia		
11:45 - 12:25	***Mathematical Model of Boundary Layer Flow in a Porous Medium Filled by a Nanofluid: Stability Analysis***	**Norihan Md Arifin** *Universiti Putra, Malaysia*
12:25 - 13:00	***Gravitational Decoupled Anisotropic Solutions***	**Muhammad Sharif (TI)** **University of the Punjab, Lahore**
13:00 – 13:30	***Trigonometric Hamming similarity operators***	**Samina Mazhar** *LCWU, Lahore*
13:30 – 14:30	**Lunch Break**	

	Morning Parallel Session II Session Chair: M. Yousaf Bhatti	
11:45 - 12:25	*Process of Transportation during Gravitational Collapse*	**Hafiza Rizwana Kausar** *University of Central Punjab, Lahore*
12:25 - 13:00	*Estimation of Different Entropies by using refinement of Jensen's inequality and their Generalization for higher order convex function*	**Tasadduq Niaz** *The University of Lahore, Sub-Campus Sargodha*
13:00 – 13:30	*Ternary non-stationary subdivision schemes in hyperbolic forms*	**Wardat us Salam** *University of Education, Lahore*
13:30 – 14:30	**Lunch Break**	
	Afternoon Parallel Session I Session Chair: Yousaf Habib	
14:30 - 15:05	*Hartmann boundary layer in peristaltic flow for viscoelastic fluid*	**Saleem Asghar,** *COMSATS University Islamabad*
15:05 - 15:30	*Fractional Mechanism of Microwave Radiating Therapy of Breast Cancer*	**Muhammad Imran Asjad** *UMT, Lahore*
15:30 -15:55	*H-Irregularity strength for some family of graphs.*	**Muhammad Numan** *COMSATS University Islamabad, Attock Campus*
15:55 – 16: 20	*Coupled orbital-thermal evolution of major Uranian satellites*	**Attique Ur-Rehman** *Virtual University of Pakistan*

16:20 – 16: 45	*A Multicriteria Decision-Making Approach Based on Fuzzy AHP with Intuitionistic 2-Tuple Linguistic Sets*	**Shahzad Faizi** *Virtual University of Pakistan*

Afternoon Parallel Session II

Session Chair: Hani Shaker

14:30 - 15:05	*Plane Symmetric Gravitational Waves Like Spacetimes and the Conservation Laws*	**Farhad Ali** *Kohat University of Science and Technology,KPK, Pakistan*
15:05 - 15:30	*Existence results for nonlinear coupled boundary value problems*	**Imran Talib** *Virtual University of Pakistan*
15:30 -15:55	*Compact Stars using TOV Equation in Modified Gauss-Bonnet Gravity*	**Ms. Tayyaba Naz** *National University of Computer and Emerging Sciences (FAST), Lahore*
15:55 – 16: 20	*Non-flat FRW Universe Version of Tsallis Holographic Dark Energy in Specific Modified Gravity*	**Mr. Nadeem Azhar** *The Crescent College, Lahore*
16:20 – 16: 45	*MHD influence on different water based nanofluids (T iO2,Al2O3,CuO) in porous medium with chemical reaction and Newtonian heating*	**Ms. Maryam Aleem** *UMT, Lahore*

Day 2: February 21, 2019 (Thursday)

	First Session	
	Session Chair: Norihan Md Arifin	
Time	*Talk*	*Speaker*
08:45 -09:30	*Solving Boundary Value Problem for Delay Differential Equation using Multistep Block Method*	**Zanariah Abdul Majid** *Universiti Putra, Malaysia*
09:30 -10:15	*Qualitative Criteria for Solutions of Various Kind of Integro -Differential and Impulsive Differential Equations*	**Cemil Tunc** *Van Yuzuncu Yıl University,Turkey*
10:15 -10:45	**Tea & Refreshment**	
	Morning Parallel Session I	
	Session Chair: Kashif Ali	
10:45-11:30	*On fractional derivatives and generalized functions*	**Adem Kilicman** *Universiti Putra, Malaysia*
11:30 -12:00	*Effects of Thermal Fluctuations on Non-Minimal Regular Magnetic Black Hole*	**M. Umair Shehzad** *UCP, Lahore*
12:00 -12:30	*Numerical Analysis for Role of Media and Treatment on an Infectious Disease Dynamics*	**Muhammad Rafiq** *University of Central Punjab, Lahore*
12:30 – 13:00	*A fractional order HIV-TB co-infection model with non-singular Mittag-Leffler Law*	**Hasib Khan** *Shaheed BB University, Sheringal,*

		Dir.
	Morning Parallel Session II Session Chair: Muhammad Hussain	
10:45 -11:10	*A Combinatorial Result about Sequential Computation of Function*	**Rana Safdar** *University of Sargodha, Sargodha*
11:10 – 11:35	*Gravitational theories in context of variational principles*	**Ifra Noureen** *UMT, Lahore*
11:35-11:55	*Behavior of Anisotropic Compact Stars in $f(R,\phi)$ Gravity*	**Adnan Malik** *FAST, Lahore*
11:55-12:20	*Gravitational Perfect Fluid Collapse in Gauss-Bonnet Gravity*	**Muhammad Tahir** *The Islamia University of Bahawalpur*
12:20 – 12:40	*Matter Accretion onto a Brane-World Black Hole Via Hamiltonian Approach*	**Allah Ditta** *The Islamia University of Bahawalpur*
12:40 -13:00	**Weak Gravitational Lensing and Gauss-Bonnet Theorem**	**Jameela Abbas** *University of Education, Lahore*
13:00 -14:15	**Lunch Break**	
	Morning Parallel Session III Session Chair: Ayesha Sohail	
10:45 -11:10	*Static Spherically Symmetric Wormholes in Generalized Gravity*	**Farzana Kausar** *COMSATS University Islamabad, Lahore*

11:10 – 11:35	*Accretion onto Charged Black Holes in Various Theories of Gravity*	**Shahid Chudhary** *Sharif College of Engineering and Technology, Lahore.*
11:35-11:55	*Vertex Anti-magic Total Labeling*	**Muhammad Mubashar** *COMSATS University Islamabad, Lahore*
11:55-12:20	*Topological Descriptor of 2-Dimensional SiliconCarbons and Their Applications*	**Nadeem Ghauri** *COMSATS University Islamabad, Lahore*
12:20 – 12:40	*Generators of Maximal Subgroups of Harada-Norton and some Linear Groups*	**Faisal Yasin** *COMSATS University Islamabad, Lahore*
12:40 -13:00	*Analysis of Anisotropic Universe through Dark Energy Model*	**Nimra Irshad** *University of Education, Lahore*
13:00 – 14:15	**Lunch Break**	

Afternoon Parallel Session I
Session Chair: Cemil Tunc

14:15 - 15:00	*Numerical simulations of fractional nonlinear Hartmann flow with revised heat flux model*	**Amer Rasheed** *LUMS, Lahore*
15:00 - 15:30	*Functional partial differential equations and cell division*	**Ali AshherZaidi** *LUMS, Lahore*
15:30 -16:00	*Continuous approximations for long-term numerical simulations of the solar system*	**Sahfiq Ur Rehman** *UET Lahore. Pakistan*
16:00 – 16: 30	*Existence of Wormholes and Noether Symmetry Approach in f(R, T) Gravity*	**Iqra Nawazish** *University of Education, Lahore.*

Afternoon Parallel Session II
Session Chair: Imran Asjad

14:15 - 14:45	***Second-order slip effects on oscillating fractionalized Maxwellfluid in porous medium***	**Muhammad Jamil** *NED University of Engineering & Technology, Karachi*
14:45 - 15:15	***Complexity Factor For Anisotropic Source in Non-minimal Coupling Metric f(R) Gravity***	**Hammad Nazar** *The Islamia University of Bahawalpur*
15:15 -15:35	***A New Model of Quintessence Compact Stars in the Rastall Theory of Gravity***	**Muhammad Rizwan Shahzad** *The Islamia University of Bahawalpur*
15:35 – 15:55	***Aspects of Cosmic Compact Star in f(R) Gravity.***	**Iffat Fayyaz** *National University of Computer and Emerging Sciences (FAST), Lahore*
15:55-16:15	***About dynamic behavior of rational difference equation***	**Ansar Abbas** *Riphah International University, Islamabad*
16:15-16:30	***Warm intermediate inflation in General Relativity***	**Mohsin Raza Khan** *University of Education, Lahore*
Afternoon Parallel Session III Session Chair: Qurat ul Ain		
14:15 - 14:45	***Numerical comparisons of finite element stabilized methods for high Reynolds numbers vortex dynamics simulations***	**Naveed Ahmed** *LUMS, Lahore*
14:45 - 15:05	***Peristaltic flow of Jeffrey Six Constant Nanofluid Flow in an Endoscope with Non-uniform Vertical Tube***	**Aqila Shaheen** *CUI, Lahore*
15:05 -15:25	***Multiple Complex Soliton for Nonlinear Telegraph Equation***	**Badar Nawaz** *COMSATS University Islamabad, Lahore*

15:25 – 15:45	*Topological Characterization of the Symmetrical Structure of Bismuth Tri-Iodide*	**Muhammad Arfan Ali** *COMSATS University Islamabad, Lahore*
15:45 – 16: 00	*Hosoya Polynomial of Graphs*	**Haseeb Ahmad** *COMSATS University Islamabad, Lahore*
16: 00– 16: 15	*M-Polynomial of Chemical Graphs*	**Farrukh Ijaz** *COMSATS University Islamabad, Lahore*
16: 15– 16: 30	*Quantum tunneling and Correction for massive Vector particles*	**Rimsha Baber** *University of Education, Lahore*

Day 3: February 22, 2019 (Friday)

First Session		
Session Chair: Zanariah Abdul Majid		
Time	*Talk*	*Speaker*
08:45 -09:30	*Second Derivative General Linear Methods for the Numerical Solution of Ordinary Differential Equations*	**Gholam Reza Hojjati** *University of Tabriz, Iran*
09:30 -10:15	*A Journey through Structure-Preserving Discretization*	**Raffaele D'ambrosio** *University of L'Aquila, Italy*
10:15 -10:45	**Tea & Refreshment**	
Morning Parallel Session I		
Session Chair: Gholam Reza Hojjati		

10:45-11:30	*Numerical Study of Reaction Mechanism of Methane*	**Khalid Saifullah Syed** *BZU, Multan*
11:30 -12:15	*A method for solving nonlinear fractional partial differential equation*	**Umer Saeed** *National University of Sciences and Technology (NUST), Islamabad*
12:15 -12:45	*Numerical Computation of Shock Waves by Using Simplified Ghost Point Treatment*	**Muhmmad Asif Farooq** *National University of Sciences and Technology (NUST), Islamabad*
	Lunch Break	

Morning Parallel Session II
Session Chair: Raffaele D'ambrosio

10:45-11:20	*Fractional Order Derivative Model for Artificial Pancreas*	**Muhammad Umer Saleem** *University of Education, Lahore*
11:20 -11:45	*Numerical Solution of the SIR Model with Vaccination, Treatment and Incidence Rate Using Galerkin Scheme*	**Atta ullah** *Bacha Khan University Charsadda, KPK*
11:45 -12:15	*Stability of Charged PSR J1614-2230*	*Syed Ali Mardan Azmi* *UMT, Lahore*
12:15 – 12:40	*Nonlinear Partial Differential Equations and their Exact Solutions*	*Fiza Batool* *UCP Lahore*
12:40 - 14:15	**Jumma Prayer/Lunch Break**	

Afternoon Session
Session Chair: Sarfraz Ahmed

14:15 – 14: 45	*Chaotic Dynamical Systems and the problem of prediction.*	**Stefano Luzzatto** *Strada Costiera, Trieste, Italy*
14:45 – 15:30	**Closing Ceremony**	