IPMC
International Pure
Mathematics Conference

CERTIFICATE OF PARTICIPATION

This certificate is presented to:

Dr. Yahi Rachid

For participation as a Speaker from **University of Msila, Algeria** in the
Silver Jubilee International Pure Mathematics Conference (25th IPMC 2025)
from 29th to 31st August 2025, Islamabad, Pakistan.
The title of his/her talk was "The interpolative of nonlinear mappings"

Conference Secretary
Dr. Muhammad Sarwar Saeed

Founding Conference Convener
Emeritus Professor Qaiser Mushtaq

Silver Jubilee International Pure Mathematics Conference 2025
29-31 August 2025, Islamabad, Pakistan

The interpolative of nonlinear mappings

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Abstract
In this talk we present and establish the interpolative method, related to an non linear operator ideal, in order to get an new classes of non linear operators ideals, some examples are given, modeled the class of (p, σ)-absolutely factorable Lipschitz operators

Keywords: nonlinear operator ideals, interpolative method, (p, σ)-absolutely factorable Lipschitz operators
2020 Mathematics Subject Classification: Primary 47A35, 60Fxx, 60G10.

References

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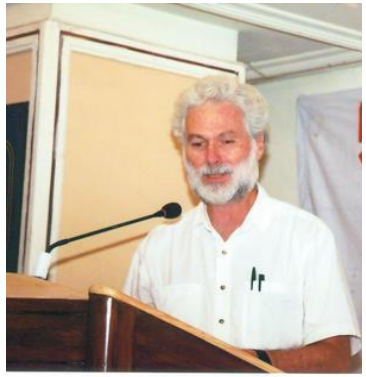
Programme

25th International Pure Mathematics Conference 2025
29-31 August 2025, Islamabad, Pakistan
(Silver Jubilee IPMC 2025)

Friday, 29th August 2025, Face-to-Face
(Inaugural Session)



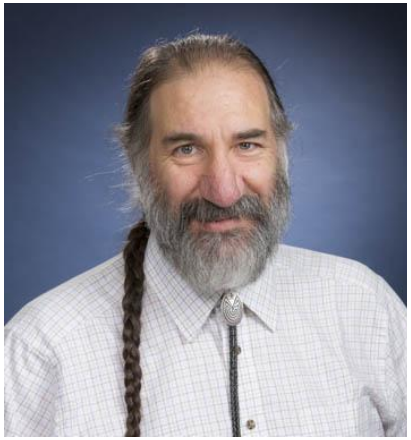
Professor Said Najati Sidki Day: Day 1 of the Silver Jubilee International Pure Mathematics Conference (25th IPMC 2025) is dedicated to **Professor Said Najati Sidki (Jerusalem, Brazil),** is a distinguished Brazilian mathematician renowned for his pioneering contributions to group theory and algebra. Educated at the American University of Beirut and the University of Kansas (Ph.D., 1967), he later joined the University of Brasília, where he became Professor Emeritus. Sidki's research spans finite groups, weak permutability, and self-similar groups, including the celebrated fractal Burnside groups developed with Narain Gupta. A founder of Brazil's national Escola de Álgebra, he has mentored many Ph.D. students and strengthened international collaborations. He is a member of the Brazilian Academy of Sciences and recipient of Brazil's Order of Scientific Merit.

Professor Said Najati Sidki has visited Islamabad as invited speakers at the International Pure Mathematics Conference (IPMC). The IPMC, founded by Emeritus Professor Qaiser Mushtaq, is Pakistan's premier annual mathematics gathering. Over the years, it has brought distinguished mathematicians from around the world to share their research, foster collaboration, and strengthen the global mathematics community. This year, the IPMC proudly celebrates its Silver Jubilee, marking twenty-five years of academic excellence and international engagement in pure mathematics.

09:00 – 09:20	**Registration**
09:20 – 09:30	**Recitation**
09:30 – 09:50	**Inaugural Speech** **Emeritus Professor Dr. Qaiser Mushtaq, Quaid-i-Azam University, Islamabad** **Convener 25th IPMC 2025**
09:50 – 10:20	**Report about the IPMC Series** **Dr. M Sarwar Saeed, Secretary of the IPMC Organizing Committee**
10:20 – 10:40	**Resolution**
11:30 – 12:00	**Tea Break**

Venue: **Multipurpose Hall, Islamabad Club**

Saturday, 30th August 2025-Online



Professor Herman Servatius Day

Day 2 of the Silver Jubilee International Pure Mathematics Conference (25th IPMC 2025) is dedicated to **Professor Herman Servatius (USA)**, a mathematician at Worcester Polytechnic Institute (WPI), specializing in combinatorics, rigidity theory, and geometry. He earned his Ph.D. from Syracuse University in 1987 under Jacques Lewin, with a dissertation on graph groups. His research covers symmetry, duality, and structural rigidity, and he is co-author of the influential book Combinatorial Rigidity (with Brigitte Servatius and Walter Whiteley). Internationally recognized, he has collaborated widely, including a celebrated paper with Professor Qaiser Mushtaq on alternating groups, published in the Journal of the London Mathematical Society, which reflects his deep contributions to group theory and discrete mathematics. (pic@www.wpi.edu).

Professor Herman Servatius has visited Islamabad as invited speakers at the International Pure Mathematics Conference (IPMC). The IPMC, founded by Emeritus Professor Qaiser Mushtaq, is Pakistan's premier annual mathematics gathering. Over the years, it has brought distinguished mathematicians from around the world to share their research, foster collaboration, and strengthen the global mathematics community. This year, the IPMC proudly celebrates its Silver Jubilee, marking twenty-five years of academic excellence and international engagement in pure mathematics.

09:00 – 09:30	**00-Keynote Talk** **Professor Milica Kolundzij, University of Nis, Serbia** **One-sided generalized Drazin inverses in Banach algebras**	
	Channel A	**Channel B**
09:30 – 09:50	**01-Dr. Mehsin Jabel Atteya** **Mustansiriyah University, Iraq** Connections Between Prime Ideals and Derivations over Associative Rings	**01-Ms Kadari Halima** **Djillali Liabes University of Sidi Bel-Abbes, Algeria** On Nonlocal Boundary Caputo Tempered Fractional Coupled Systems
09:55 – 10:15	**02-Dr. Muhammad Asad Zaighum** **Nazarbayev University, Kazakhstan** On Grand Net Spaces	**02-Dr. Ouahiba Litimein** **University of Saida, Algeria** Existence and controllability results for integrodifferential equations with state-dependent nonlocal conditions via fractional power operators in Fréchet spaces

10:20 – 10:40	**03-Mrs. Zoha Kanwal** **QAU, Islamabad** A Connection Between Infinite and Finite Coset Diagrams for PGL(2, Z)	**03-Dr. Hamida Litimein** **Djillali Liabes University of Sidi Bel-Abbes, Algeria** Asymptotically Almost Automorphic Mild Solutions for Semilinear Integro-differential Evolution Equations
10:45 – 11:05	**04-Dr. Mime Rania** **University of Oran1, Algeria** Realization of matrices over $SL(2, \mathbb{R}[x_1, \dots, x_k])$	**04-Prof. Agnes Orsolya Pall-Szabo** **Babeș-Bolyai University, Cluj-Napoca, Romania** Radius Estimates for Certain Analytic Function Classes Involving Hermite Polynomials
11:10 – 11:25	**05-Miss Hetatache Khalissa** **The National Higher School of Islamic Sciences, Algeria** The Methodology of Proof in Al-Khwārizmī's Algebra: A Historical and Analytical Study	**05-Ms. Manel Zermani** **University of Jijel, Algeria** Even and odd indexed symmetric functions and their applications to special numbers and bivariate polynomial identities
11:30 – 11:45	**06-Dr. Noura Laksaci** **University Ahmed Draia of Adrar, Algeria** Fixed Point Theorems Involving Vector Degrees of Nondensifiability in Generalized Banach Spaces	**06-Dr. Fatna Bensaber** **University of Tlemcen, Algeria** On the Convergence Rates of Weighted Means within the Framework of the Strong Law of Large Numbers
11:50 – 12:05	**07-Dr. Muhammad Umair Safdar** **QAU, Islamabad** Enhancing image data security with chain and non-chain Galois ring structures	**07-Dr. Ahlam Belfar** **University Mohamed El Bachir El Ibrahimi Bordj Bou Arreridj, Algeria** Global dynamics and phase portrait analysis of the generalized Selkov–Tyson model
12:10 – 12:25	**08-Dr. Mebarki Khadidja** **Laboratory of Mathematics Modeling and Applications, Algeria** Some Non-Linear Contraction Theorems in Bipolar b-Metric Spaces	**08-Ahmed Chaouki Aouine** **Souk-Ahras University, Algeria** Fixed point theory for contractions in partially ordered metric spaces with applications
12:30 – 12:45	**09-Dr. Aldjia Maatoug** **Amar Telidji University of Laghouat, Algeria** A Singular Integral Operator on Lizorkin-Triebel Spaces	**09-Dr. Ghada Arafa** **Badji Mokhtar Annaba University, Algeria** Quantile credibility model under different loss functions (independent risks case)

12:50 – 13:05	**10-Miss Thobile Ngcamphalala** **Rhodes University, South Africa** On the category of almost k-compact locales	**10-Mr. Aboubaker El-Saddik Bouziane** **Abdelhamid Ibn Badis University, Algeria** Existence and uniqueness results for singular Caputo fractional boundary problem via fixed point theorem
13:10 – 14:00	**Break**	
14:00 – 14:15	**11-Dr. Amel Bourahli** **University of Bordj Bou Arreridj, Algeria** Generalized norm inequalities for accretive-dissipative matrices	**11-Dr. Hayat Benchira** **University of Tlemcen, Algeria** Existence result for an elliptic nonlocal problem of Kirchho type
14:20 – 14:35	**12-Ms Yousra Chelali** **University Center of Barika, Algeria** On the intuitionistic fuzzy ideals in ℓ-group	**12-Dr. Wahiba Benyahia** **University of Tlemcen, Algeria** On Some Problems of Estimation for Banach Autoregressive Process
14:40 – 14:55	**13-Miss Salma Naceur** **University Center of Barika, Algeria** Bihom-group acted on a Bihom-set	**13-Miss Nacera Berrighi** **Abdelhamid Ibn Badis University, Algeria** On the Growth of Solutions to Differential Equations Involving Complex Exponentials and Entire Functions
15:00 – 15:15	**14-Dr. Nour Elhouda Allaoui** **University of Science and Technology Houari Boumediene, Algeria** Regularity of Elliptic Problems having Convection term	**14-Dr. Lydia Bouchal** **Bouira University, Algeria** Existence result for a discrete boundary value problem via fixed point theory
15:20 – 15:35	**15-Mrs. Bouthina Sabah Hammou** **University of Msila, Algeria** Strongly $\tau(p)$-summing multilinear operators	**15-Miss Fatma Berrighi** **University of Mohammed Boudiaf, Algeria** Qualitative and Quantitative Analysis of Mild Solutions to Second-Order Conformable Fractional Evolution Equations
15:40 – 15:55	**16-Mr. Briedj Yacine** **University of Science and Technology of Houari Boumediene, Algeria** Elliptic Curves' integer points deduced from a D(1) extension of a special D(-1)-triple	**16-Prof. Youssouf Chahma** **Southwest Jiaotong University, China** Existence of sign-changing solution for Kirchhoff-type problems involving p-Laplacian

16:00 – 16:15	**17-Miss Tehniat Butt** **International Islamic University, Islamabad** Approximating Common Endpoints of Mappings Satisfying Condition E' and Generalized (α, β)-Nonexpansive Mappings in Hyperbolic Spaces	**17-Dr. Kheireddine Biroud** **High School of Management, Tlemcen, Algeria** Some Nonlocal elliptic Systems with nonlinear singular terms
16:20 – 16:35	**18-Dr. Maatougui Belaala** **University of Msila, Algeria** Some remarks on MS-Lipschitz summing operators	**18-Dr. Fayssal Djellali** **Badji Mokhtar Annaba University, Algeria** Stabilization of the Gurtin-Pipkin thermal coupling with laminated beam system
16:40 – 16:55	**19-Mr. Rachid Mammeri** **University of Science and Technology of Houari Boumediene, Algeria** Some results about double and triple Skew Cyclic Codes	**19-Elias Taki Eddine Mohammed Chikouche** **Laboratory of Stochastic Models, Statistics and Applications, Algeria** On the non-Lipschitz financial stochastic differential equation

Sunday, 31st August 2025-Online

Dato Professor Rosihan M. Ali Day

Day 3 of the Silver Jubilee International Pure Mathematics Conference (IPMC 2025) is dedicated to **Dato Professor Rosihan M. Ali (Malaysia)**, a distinguished Malaysian mathematician and a pioneering force in advancing mathematics in Malaysia. He founded the Bulletin of the Malaysian Mathematical Society (later the Bulletin of the Malaysian Mathematical Sciences Society), which has become an internationally recognized journal. Beyond his research contributions, he played a leading role in strengthening the Malaysian Mathematical Society, building academic networks, and mentoring generations of scholars. In recognition of his outstanding services to education and mathematics, he was awarded the Darjah Indera Mahkota Pahang (DIMP) in 2006 and later the Sri Indera Mahkota Pahang (SIMP) in 2017, carrying the titles Dato' and Dato' Indera. (pic@www.usm.my)

Professor Dato' Indera Rosihan M. Ali has visited Islamabad as invited speakers at the International Pure Mathematics Conference (IPMC). The IPMC, founded by Emeritus Professor Qaiser Mushtaq, is Pakistan's premier annual mathematics gathering. Over the years, it has brought distinguished mathematicians from around the world to share their research, foster collaboration, and strengthen the global mathematics community. This year, the IPMC proudly celebrates its Silver Jubilee, marking twenty-five years of academic excellence and international engagement in pure mathematics.

09:00 – 09:40	**Keynote Talk** **Professor Mamdasho Ilolov, Academy of Sciences, Tajikistan** **On positive solutions of the logistic equation with random disturbances**	
	Channel A	**Channel B**
09:50 – 10:05	**01-Saima Mustafa** **Rawalpindi Women University, Rawalpindi** Subclasses of Analytic Functions Associated with Quantum Hyper-Bessel Functions	**01-Mrs. Nesrine Gouri** **University of Badji Mokhtar Annaba, Algeria** Numerical Signal Processing for Bearing Fault Detection: A Deconvolution-Based Approach
10:10 – 10:25	**02-Mr. Youcef Elhammam Hemici** **Setif 1 University Ferhat Abbas, Algeria** A Novel Hybrid Conjugate Gradient Method Based on a Convex Combination of RMIL and HS Parameters	**02-Dr. Hassan Messaoudi** **University of Msila, Algeria** Investigate the long-time behavior of solutions for time-fractional Oldroyd-B fluid equations governed by generalized fractional derivatives
10:30 – 10:45	**03-Dr. Nayyar Mehmood** **International Islamic University, Islamabad** Mathematical Analysis of Dynamical Systems Involving Atangana–Baleanu Piecewise Derivative	**03-Dr. Sehili Ismahene** **University of Mohamed El Bachir El Ibrahimi, Algeria** Primal and dual variational analysis of a quasistatic electro-viscoelastic contact problem

10:50 – 11:05	**04-Dr. Farheen Ibraheem** **Forman Christian College University, Lahore** Machine Learning-Based Analysis of Rainfall Trends in Islamabad-Pakistan	**04-Mr. Rachid Lakehal** **University of Bejaia, Algeria** Well posedness and decay of the full Von Kármán beam by thermal effect and delay
11:10 – 11:25	**05-Mr. Hamache Houssam Eddine** **University of Bejaia, Algeria** A multilayer perceptron and cost optimization of a single-server queue with Bernoulli feedback and customer impatience under a hybrid vacation policy	**05-Dr. Moussaoui Nouha** **Laboratory of Numerical and Fundamental Mathematics, Setif 1, Algeria** A weighted full-Newton step interior-point algorithm for convex quadratic optimization based on a new algebraically equivalent transformation
11:30 – 11:45	**06-Mr. Said Bensliman** **Amar Telidji University, Algeria** Isometry of a rectangular Toeplitz Matrices	**06-Dr. Yahi Rachid** **University of Msila, Algeria** The interpolative of nonlinear mappings
11:50 – 12:05	**07-Dr. Fouzia Birem** **Abdehafid Boussouf University Center of Msila, Algeria** Numerical Solution of the Goursat Problem Using the Taylor Collocation Method	**07-Dr. Bouabsa Wahiba** **Djilali Liabes University, Algeria** KNN Local Linear Estimation of Conditional Density and Mode for Functional Spatial High-Dimensional Data
12:10 – 12:25	**08-Dr. Abdelkhalek Balehouane** **University of Science and Technology of Houari Boumediene, Algeria** Uniform stabilization of an elasticity problem without internal damping and non-locally reacting boundary conditions	**08-Ms Sabah Iqbal** **Forman Christian College University, Lahore** Analytical and Numerical Solutions for Oldroyd–B Fluid Motion: A Comparative Study Using MATLAB and Machine Learning
12:30 – 12:40	**09-Dr. Somia Tamouza** **University of Mohammed Seddik Benyahia, Jijel** A coupled system of fractional-order differential inclusion with Caratheodory multi-valued maps	**09-Miss Ahlem Sidi Yekhlef** **University of Belhadj Bouchaib, Algeria** Stabilization results of a wave equation with a time varying-delay in the internal fractional feedback and infinite memory
12:40 – 12:50	**10-Dr. Mouchir Samiha** **University of Adrar, Algeria** Controllability Results of Sobolev-Type Stochastic Integro-differential Equations with Non-Instantaneous Impulsive and Infinite Delay	**10-Dr. Assia Khassani** **Xiangtan University, China** Study of a diffusion model for population dynamics with dispersal incorporating individual behaviour at boundaries

12:50 – 13:00	**11-Mr. Muhammad Waseem Akhtar** **QAU, Islamabad** Dynamical analysis and bifurcation exploration in a biological model with neural network forecasting	**11-Miss Khedidja Abidi** **University Amar Telidji, Algeria** Stability Analysis of a Nonlinear Petrovsky Equation Under Stochastic Forcing and Time-Dependent Delay
13:00 – 14:00	**Break**	
14:00 – 14:10	**12-Ms Amina Becheroul** **Hassiba Benbouali University of Chlef, Algeria** Kernel-based trend function estimation in stochastic differential equations driven by mixed sub-fractional Brownian motion	**12-Dr. Soufiane Benkouider** **University Amar Telidji, Algeria** The exponential growth of solution, upper and lower bounds for the blow-up time for a viscoelastic wave equation with variable exponent nonlinearities
14:10 – 14:20	**13-Mr. Mohammed Yassine Trigui** **University of Laghouat, Algeria** Blow-up behavior for a strongly damped logarithmic wave equation involving variable exponents	**13-Miss Sara Labidi** **Badji Mokhtar Annaba, University, Algeria** On the General Decay of a Lord-Shulman porous thermoelastic system with nonlinear damping term
14:20 – 14:30	**14-Mr. Hamza Tabti** **University Ibn Khaldoun Tiaret, Algeria** Three Positive Solutions for Fractional Boundary Value Problems with Integral Boundary Conditions	**14-Mr. Salah Eddine Bessayeh** **University of Djillali Liabes, Algeria** Quantifying the Public Health Impact of Early COVID-19 PCR Testing Through Mathematical Modelling
14:30 – 14:40	**15-Dr. Louiza Soltane** **University of Biskra, Algeria** Review and a new kernel estimation of the extreme value index in a censorship	**15-Mr. Oum Elkheir Benaouda** **University of Sciences and Technology Mohamed Boudiaf, Algeria** On asymptotic normality of the regression function for functional data
14:40 – 14:50	**16-Mr. Hamlat Tayeb** **University of Dr. Moulay Taher-Saida, Algeria** Nonparametric estimation of performability in homogenous continuous-time semi-Markov processes	**16-Dr. Tikialine Belgacem** **University of Bechar, Algeria** Boundary control and asymptotic stability of an axially moving with a logarithmic nonlinearity
14:50 – 15:00	**17-Mr. Abdelhadi Safsaf** **University of Belhadj Bouchaib, Algeria** Study the Timoshenko system with past history and the derivative fractional dissipative terms	**17-Dr. Halima Boudada** **University Frères Mentouri, Algeria** Rate of the almost sure convergence of the generalized regression estimator for functional and incomplete data

15:00 – 15:10	**18-Ms Alae Nore Khoukhi** **Kasdi Merbah University, Algeria** Existence and Stability for a Hadamard-Type Fractional Model of Viscoelastic Convection in Porous Media	**18-Mr. Lamouri Boubakr** **Ahmed Draıa University, Algeria** Mathematical modelling of host-pathogen interactions with spatial heterogeneity
15:10 – 15:20	**19-Dr. Chahrazed Boudelfa** **Djillali Liabes University of Sidi Bel-Abbès, Algeria** Mild Solution Controllability for Fractional Evolution Equations with Finite State-Dependent Delay and Nonlocal Conditions	**19-Dr. Azil Souaad** **University Oran 1, Algeria** The dynamic of Caputo-like discrete fractional Four-dimensional hyperchaotic Rossler system: Chaos, stabilization and synchronization
15:20 – 15:30	**20-Dr. Ilhem Kadri** **University of Oran 1 Ahmed Ben Bella, Algeria** Analytical approaches to the hyperchaotic 4D system utilizing the Residual Power Series method within the Caputo framework	**20-Dr. Chetti Meryem** **University of Mostaganem, Algeria** Growth of Solutions of Higher Order Linear Differential Equations with Solutions of Another Equation as Coefficients
15:30 – 15:40	**21-Mr. Mehdi Selmani** **University of Oran 2, Algeria** Nonlinear Fractional Differential Equations with Ψ-Hilfer operator: Existence of weak Solutions	**21-Dr. Muhammad Hussain** **NUST, Islamabad** Data security encryption algorithm based on algebraic structures
15:40 – 15:50	**22-Ms Iqra Saqib** **International Islamic University, Islamabad** Asymptotic Almost Periodicity and Ergodic Theorems	**22-Dr. Loubna Boulkemh** **Mohamed Seddik Benyahia Jijel University, Algeria** An optimal controlled problem governed by a first-order differential inclusion
15:50 – 16:00	**23-Miss Asia Noor** **Air University, Islamabad** Some new Optimal Skew cyclic codes with derivation	**23-Miss Samra Younas** **Government Sadiq College Women University, Bahawalpur** A combined non-symmetric 6-point quaternary subdivision scheme with shape-control parameters
16:00 – 16:10	**24-Dr. Muhammad Sajjad** **NU Tech, Islamabad** Applications of Gaussian and Eisenstein Fields to Coding Theory and Cryptography	**24-Dr. Amina Benramdane** **Higher School of Management-Tlemcen, Algeria** Stability of Solutions to a Viscoelastic Kirchhoff Equation with Time-Varying Delay

16:10 – 16:25	**25-Dr. Munirah Rossdy** **Universiti Teknologi MARA, Malaysia** Bi-Univalent Functions Classes Defined by Using an Einstein Function and a New Generalized Operator	**25-Dr. Tehreem** **Air University, Islamabad** A novel methodology for decision support systems using spherical cubic fuzzy numbers
Conclusion		

NOTE: There are two parallel channels of talks.
Talks (including keynote lectures) listed in the blue column will be held in Channel A
Talks listed in the red column will be held in Channel B