

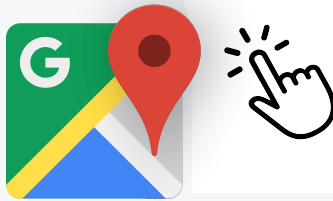


**CMSA**

المؤتمر السادس لعلوم  
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The 6<sup>th</sup> CMSA 2025

April 2025 ,15, Single Session (Conference Building)

Time	ROOM B26	Affiliation	Title of the Talk	Chairman
08:00 – 09:00	<b>Registration and participant reception</b>			
09:00 – 09:50	<b>Prof. Dr. Youssef Ouknine</b>	Cadi Ayyad University, UM6P, AH2ST, Morocco	A Doob-Meyer-Mertens Decomposition Approach to the Snell Envelopes of Optional Processes	Abir Alharbi
09:50 – 10:40	<b>Prof. Dr. Alexander Schied</b>	University Of Waterloo, Canada	Exploring Roughness in Stochastic Processes: From Weierstrass Bridges to Volatility Estimation	Mohammed Al-Gwaiz
11:00 – 12:00	<b>Opening Ceremony: Welcome speech and introduction to the conference program</b>			
12:00 – 13:00	<b>Dhuhr prayer break + coffee and tea</b>			
13:00 – 13:50	<b>Prof. Dr. Daniel Lesnic</b>	University of Leeds, United Kingdom	Inverse modelling of biological tissues	Bandar Almohsen
13:50 – 15:00	<b>Scientific poster presentations</b>			Reem Alhefdhi





### April 16, 2025, Single Session (Building 4)

Time	ROOM 142	Affiliation	Title of the Talk	Chairman
09:00 – 09:50	<b>Christian Boehmer</b>	University College London, United Kingdom	Dynamical Systems in Cosmology	Ahmad Alghamdi
09:50 – 10:40	<b>Herve Gaussier</b>	Université Grenoble Alpes, France	The Poincaré metric and some generalizations	Ahmad Alghamdi
10:40 – 11:00	<b>Break</b>			

### April 16, 2025, Parallel Sessions (Building 4)

Time	ROOM 142	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Mario Lefebvre	Polytechnique Montréal, Canada	First-passage problems for jump-diffusion processes	Mhamed Eddahbi
11:35 – 12:10	Samir Ben Hariz	Le Mans University, France	Change-point for random design regression derivative with non-stationary errors	Mhamed Eddahbi
12:10 – 13:00	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Mogtaba Mohammed	Majmaah University, Saudi Arabia	Homogenization of a nonlinear stochastic model for reactive flows with a noise boundary	Mhamed Eddahbi
11:35 – 13:45	<b>Break</b>			
13:45 – 14:05	Nuha Alasmi	The University Of Liverpool, United Kingdom	Optimal investment in a multi-asset market with borrowing and unbounded random coefficients	Anwar Almualem
14:05 – 14:25	Mashaal Algouly	King Saud University, Saudi Arabia	Optimal financial benchmark tracking in a market with a Hull-White interest rate model	Anwar Almualem
14:25 – 14:45	Bader Saidan	Cardiff University, United Kingdom	Exotic options in fractal activity time models with the Student distribution of log-returns	Anwar Almualem
14:45 – 14:55	<b>Break</b>			
14:55 – 15:15	Fadhah Alanazi	Prince Sultan University, Saudi Arabia	Vine Copula Construction	Mario Lefebvre
15:15 – 15:35	Abdessatar Souissi	Qassim University, Saudi Arabia	Matrix Product States as Observations of Entangled Hidden Markov Models	Mario Lefebvre
15:35 – 15:55	<b>Asr Prayer Break</b>			
15:55 – 16:15	Elsiddig Elsiddig	King Abdullah University Of Science And Technology	Unbiased Parameter Estimation For Partially Observed Diffusion	Mario Lefebvre
16:15 – 16:30	<b>Delivery of Certificates and Closing Session</b>			





April 16, 2025, Parallel Sessions (Building 4)

Time	ROOM 144	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Alfonso Montes	Universidad De Sevilla, Spain	Hyperbolic Fourier Series	Mubariz Garayev
11:35 – 12:10	Mourad Ben Slimane	King Saud University, Saudi Arabia	On anisotropic and directional regularity	Mubariz Garayev
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Hocine Guediri	King Saud University, Saudi Arabia	Analytic structure in the maximal ideal space of some function algebra	Mubariz Garayev
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Sami Alabiad	King Saud University, Saudi Arabia	Full classification of a class of finite local rings of length 5	Mohammed Guediri
14:05 – 14:25	Huda Almalki	Umm Al-Qura University, Saudi Arabia	Strong -continuity and weakly -closed functions on spaces	Mohammed Guediri
14:25 – 14:45	Mushrifah Al-Malki	Taif University, Saudi Arabia	Energy Analysis of Roughness on the Blasius Boundary Layer Over a Heated Plate	Mohammed Guediri
<b>14:45 – 14:55</b>	<b>Break</b>			
14:55 – 15:15	Tong Mao	King Abdullah University of Science and Technology	Integral Representations Of Barron And Sobolev Spaces Via RELU <sup>^k</sup> Activation Function And Applications	Diogo Gomes
15:15 – 15:35	Jianqing Zhu	King Abdullah University of Science and Technology	Localized Arabic Large Language Model	Diogo Gomes
<b>15:35 – 15:55</b>	<b>Asr Prayer Break</b>			
15:55 – 16:15	Diaa Eldin Elgezouli	Department of Basic Sciences Common, First Year Deanship, King Saud University	Greener AI: Fractional Edge Detection for Precision Water Mapping	Diogo Gomes
<b>16:15 – 16:30</b>	<b>Delivery of Certificates and Closing Session</b>			





**April 16, 2025, Parallel Sessions (Building 4)**

Time	ROOM 146	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Ahmad Alghamdi	Umm Al-Qura University, Saudi Arabia	Dynamical Systems and Algebra	Yousef Alkhames
11:35 – 12:10	Malik Talbi	King Saud University	Difference sets, Symmetric designs and the love problem	Yousef Alkhames
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Abdellatif Laradji	King Saud University	The Nucleus of a Block of a P-Solvable Group	Yousef Alkhames
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Kais Feki	Najran University, Saudi Arabia	On Bounded Linear Operators and Their Inequalities in Hilbert and Semi-Hilbert Spaces	Souhail Chebbi
14:05 – 14:25	Ahad Alotaibi	King Abdul Aziz University, Saudi Arabia	Fixed Point Results Via Multivalued Contractive Type Mappings Involving A Generalized Distance On Metric Type Spaces	Souhail Chebbi
14:25 – 14:45	Muhanna Alrashdi	University Of Hail	A model for viscoelastic fluids based on logarithmic strains	Souhail Chebbi
<b>14:45 – 14:55</b>	<b>Break</b>			
14:55 – 15:15	Suraiya Mahmood	Retired, United Kingdom	Addition of Group Endomorphisms	Malik Talbi
15:15 – 15:35	Maha Alshammari	Imam Muhammad Ibn Saud Islamic University	Specht Modules for the Symmetric Group $S_6$	Malik Talbi
<b>15:35 – 15:55</b>	<b>Asr Prayer Break</b>			
15:55 – 16:15	Mohammed Aiyashi	Jazan University	Exploring solitary wave solutions for nonlinear Schrodinger equation through fiber communications	Malik Talbi
<b>16:15 – 16:30</b>	<b>Delivery of Certificates and Closing Session</b>			





**April 16, 2025, Parallel Sessions (Building 4)**

Time	ROOM 148	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Said Mesloub	King Saud University	On a Fractional Nonlinear Singular Quasistatic problem	Nabil Ourimi
11:35 – 12:10	Mofdi El Amrani	Abdelmalek Essaâdi University, Morocco	Enhancing modelling of fish population dynamics in the Mediterranean Sea using Stochastics PDEs	Nabil Ourimi
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Messaoud Bounkhel	King Saud University	Mathematical Modeling of the motion of nanoparticles in straight Tube	Fahad Alshammari
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Waled Al-Khulaifi	King Fahd University Of Petroleum And Minerals	Exponential Decay in a Delayed Wave Equation with Variable Coefficients	Mostafa Bachar
14:05 – 14:25	Mo'tassem Al-arydah	Khalifa University, United Arab Emirates	A Two-Strain COVID19- Co-Infection Model with Strain 1 Vaccine	Mostafa Bachar
14:25 – 14:45	Azza Algaatheem	University Of Bisha	Beta-plane magnetohydrodynamic instabilities in Kolmogorov flow	Mostafa Bachar
<b>14:45 – 14:55</b>	<b>Break</b>			
14:55 – 15:15	Aisha Alshaery	University Of Jeddah	Analytical and Numerical Study of Cubic-Quartic Solitons in Birefringent Fibers Using the New Kudryashov Method and Improved Adomian Decomposition	Mohamed Abdelwahed
15:15 – 15:35	Eman Alshehry	University of Bisha	Numerical treatment for convective Sutterby nanofluid flow with activation energy through intelligent computational technique	Mohamed Abdelwahed
<b>15:35 – 15:55</b>	<b>Asr Prayer Break</b>			
15:55 – 16:15	Shreen El-Sapa	Princess Nourah Bint Abdulrahman University, Saudi Arabia	Analysis of Perturbed Gerdjikov-Ivanov Equation Using Traditional And Improved Adomian Decomposition Methods	Mohamed Abdelwahed
<b>16:15 – 16:30</b>	<b>Delivery of Certificates and Closing Session</b>			





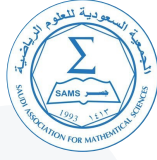
### April 17, 2025, Morning Single Session (Building 4)

Time	ROOM 142	Affiliation	Title of the Talk	Chairman
09:00 – 09:50	<b>Mohammed Seaid</b>	Durham University and UM6P (Morocco) United Kingdom	On time-stepping methods for computational fluid dynamics: Application to Newtonian and non-Newtonian flows	Dalal Alghanem
09:50 – 10:40	<b>Manuel Morales</b>	University of Montreal Canada	Building an university-based knowledge transfer network for the financial sector: The case of Fin-ML	Dalal Alghanem
10:40 – 11:00	<b>Break</b>			

### April 17, 2025, Parallel Sessions (Building 4)

Time	ROOM 142	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Rafik Aguech	King Saud University	Gaussian fluctuations of the elephant random walk with gradually increasing memory	Youssef Ouknine
11:35 – 12:10	Mohamed El Machkouri	University Mohammed VI Polytechnic, Benguerir, Morocco	On a class of step-reinforced random walks	Youssef Ouknine
12:10 – 13:00	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Wisseem Jedidi	King Saud University	Advances in Generalized Stieltjes Transforms and Their Implications for Infinite Divisibility	Youssef Ouknine
11:35 – 13:45	<b>Break</b>			
13:45 – 14:05	Mohamed Bahlali	Aix-Marseille School Of Economics	An equilibrium model of city with atmospheric pollution dispersion	Messaoud Bounkhel
14:05 – 14:25	Rahaf Alzammam	King Saud University	Sequential Tests Based on F-Distribution for Detecting Active Effects in Unreplicated Two-Level Factorial Designs	Messaoud Bounkhel
14:25 – 14:45	Ibrahim Shaaban	King Saud University	Fractional Differential-Integral Inequalities and Their Applications in Medicine: A Mathematical Model for Cancer Treatment	Messaoud Bounkhel
14:45 – 14:55	<b>Delivery of Certificates and Closing Session</b>			





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**April 17, 2025, Parallel Sessions (Building 4)**

Time	ROOM 144	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Nabil Ourimi	King Saud University	Compactness theorems for sequences of holomorphic coverings between domains in almost complex manifolds	Sharief Deshmukh
11:35 – 12:10	Mohammed Guediri	King Saud University	Characterizing Extrinsic Spheres in Riemannian and Lorentzian Einstein Manifolds	Sharief Deshmukh
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Reny George	Prince Sattam Bin Abdulaziz University	On some dislocated generalized metric spaces and applications	Wedad Albalawi
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Noura Alhouiti	University Of Tabuk	Scalar and Holomorphic Bisectonal Curvatures for Pointwise Hemi-slant Submanifolds of Complex Space Forms	Wedad Albalawi
14:05 – 14:25	Fawaz Alharbi	Umm Al-Qura University	Vector Fields on Bifurcation Diagrams of Quasi Singularities	Hocine Guediri
14:25 – 14:45	Abdulraman Alharbi	King Abdullah University of Science and Technology	General Monotone Operators for First-Order Separable Mean-Field Games with Mixed Boundary Conditions	Hocine Guediri
<b>14:45 – 14:55</b>	<b>Break</b>			
14:55 – 15:15	Amr Imam	King Faisal University	Nonlocal Electromechanical Effects in Anisotropic Dielectric Materials within Simplified Strain Gradient Elasticity	Hocine Guediri
<b>15:15 – 15:35</b>	<b>Delivery of Certificates and Closing Session</b>			





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Time	ROOM 146	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Wedad Albalawi	Princess Nourah Bint Abdulrahman University	New Double Integral Inequalities on Time Scales via Positive Operators	Said Mesloub
11:35 – 12:10	Abdul Wahab	Sultan Qaboos University, Oman	Multipolar Source Reconstruction Using Sparse Far-Field Data	Said Mesloub
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Nasser-Eddine Tatar	King Fahd University Of Petroleum And Minerals	Control of structures under large amplitudes	Said Mesloub
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Hadeel Albeladi	King Abdul Aziz University	Rational Tangle-oids	Fairouz Tchier
14:05 – 14:25	Reemah Alhuzally	Al-Baha University	On a Two-Dimensional Dirichlet Type Problem for a Linear Hyperbolic Equation of Fourth Order	Fairouz Tchier
14:25 – 14:45	Aftab Hussain	King Abdul Aziz University	Connecting the results between the graph and contractions with its applications	Fairouz Tchier
<b>14:45 – 14:55</b>	<b>Delivery of Certificates and Closing Session</b>			







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**April 17, 2025, Parallel Sessions (Building 4)**

Time	ROOM 148	Affiliation	Title of the Talk	chairman
11:00 – 11:35	Abdelkarim Boua	Sidi Mohamed Ben Abdellah University, Fez	Right homoderivations in rings and near-rings	Mongi Blel
11:35 – 12:10	Abderrahmane Raji	Sultan Moulay Slimane University, Morocco	Commutativity of $\ast$ -prime near-rings with certain special maps	Mongi Blel
<b>12:10 – 13:00</b>	<b>Dhuhr Prayer Break</b>			
13:00 – 13:35	Fairouz Tchier	King Saud University	Relational Demonic Fuzzy Refinement and some applications	Mongi Blel
<b>11:35 – 13:45</b>	<b>Break</b>			
13:45 – 14:05	Sumayyah Alabdulhadi	Qassim University	Numerical investigation of thermal radiation, slip and chemical reaction effects on MHD mixed convection stagnation point flow through porous medium past an inclined plate	Mohammed Seaid
14:05 – 14:25	Maha Helmi	Taif University	Approximate model for the propagation of surface waves on a coated cylindrical half-space with imperfect interface and Winkler-Fuss load	Mohammed Seaid
14:25 – 14:45	Fadwa Althrwai	University Of Jeddah	Analysis of Perturbed Gerdjikov-Ivanov Equation Using Traditional And Improved Adomian Decomposition Methods	Mohammed Seaid
<b>14:45 – 14:55</b>	<b>Break</b>			
14:55 – 15:15	Sarah Aljohani	Prince Sultan University	New Developments in $F_c$ -Contractions and Fixed-Circle Theorems in Metric-Like Space	Mohammed Seaid
<b>15:15 – 15:35</b>	<b>Delivery of Certificates and Closing Session</b>			

