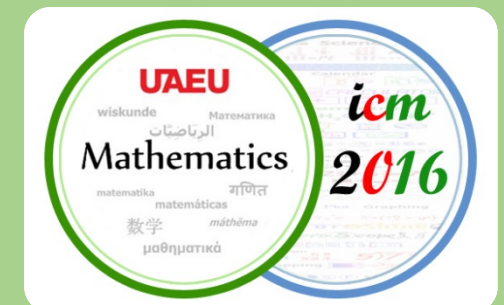


# The Fifth International Conference on Mathematical Sciences

MARCH 21 - 24, 2016

Al-Ain, United Arab Emirates

## Program



## Conference Program

Start	End	<b>DAY I</b>		
<b>Monday March 21, 2016</b>				
8:00	10:00	Welcome, Registration & Information		
10:00	10:30	Opening Ceremony – E1-G020 (Auditorium – Male)		
10:30	11:30	<b>Keynote – M.A. Aziz Alaoui</b> <b>Chair: Abdessamad Tridane</b> <b>COMPLEX NETWORK OF NEURONAL REACTION-DIFFUSION SYSTEMS: LONG-TIME BEHAVIOR AND SELF-ORGANIZATION</b>		
11:30	12:10	Coffee Break		
12:10	13:50	<b>Applied Mathematics – Session 1</b> <i>Chair: Brahim Benhammouda</i> <i>(Room: F3-040)</i>	<b>Algebra – Session 2</b> <i>Chair: Ayman Badawi</i> <i>(Room: F3-043)</i>	<b>Math. Modeling - Session 3</b> <i>Chair: Mohammad Nurul Azam</i> <i>(Room: F3-132)</i>
13:50	15:20	<b>Lunch</b> <i>(F3-ground floor)</i>		
15:20	17:00	<b>Applied Mathematics – Session 1</b> <i>Chair: Madhu Jain</i> <i>(Room: F3-040)</i>	<b>Algebra – Session 2</b> <i>Chair: Özen ÖZER</i> <i>(Room: F3-043)</i>	<b>Math. Modeling - Session 3</b> <i>Chair: P. Chakravarthy</i> <i>(Room: F3-132)</i>
17:00		<b>Transport from F3 to hotel and students' hostels</b> <i>(Transportation pick up at 17:00)</i>		

## Conference Program

Start	End	<b>DAY II</b>		
<b>Tuesday March 22, 2016</b>				
8:30	9:30	<b>Registration &amp; Information</b>		
9:30	10:30	<b>Keynote – Gaven J. Martin</b> <b>Chair: Jianhua Gong</b> <b>THE SOLUTION TO SIEGEL'S PROBLEM ON SMALL VOLUME LATTICES</b> <i>(Room: F3-040)</i>		
10:30	11:00	<b>Coffee Break (F3- Ground floor)</b>		
11:00	13:00	<b>Applied Mathematics – Session 1</b> <i>Chair: M.A. Aziz Alaoui</i> <i>(Room: F3-040)</i>	<b>Analysis – Session 2</b> <i>Chair: Gaven J. Martin</i> <i>(Room: F3-043)</i>	<b>Financial Mathematics – Session 3</b> <i>Chair: G. Al-Obaidi</i> <i>(Room: F3-132)</i>
13:00	14:30	<b>Lunch</b> <i>(F3- Ground floor)</i>		
14:30	15:50	<b>Applied Mathematics – Session 1</b> <i>Chair: Abdur Rashid</i> <i>(Room: F3-040)</i>	<b>Algebra /Topology – Session 2</b> <i>Chair: Stephaan Caenepeel</i> <i>(Room: F3-043)</i>	<b>Numerical Analysis– Session 3</b> <i>Chair: K. Karimi</i> <i>(Room: F3-132)</i>
18:00	21:00	<b>Conference Dinner</b> <i>Ayla Hotel</i>		
<b>Transport from F3 to Ayla hotel and to the students' hostel</b> <i>(Transportation pick up at 18:00)</i>				

## Conference Program

Start	End	<b>DAY III</b>
<i>Wednesday March 23, 2016</i>		
8:30	9:00	<b>Registration &amp; Information</b>
9:00	10:00	<b>Keynote – Stephaan Caenepeel</b> <b>Chair: Leonard Daus</b> <b>BICATEGORIES, TWO-DIMENSIONAL COHOMOLOGY, GALOIS COOBJECTS, PSEUDOMONONIDS AND TEHBRAUER GROUP</b> <i>(Room: F3-040)</i>
10:00	10:30	<b>Coffee Break (F3- Ground floor)</b>
10:30	11:30	<b>Poster session</b>
11:30		<b>Trip to Dubai</b>
21:00	23:00	<b>Return to Al-Ain and to hotel</b>

## Conference Program

Start	End	DAY IV		
<b>Thursday March 24, 2016</b>				
8:30	9:30	Registration & Information		
9:30	10:30	<b>Keynote – Jean Renault</b> Chair: Ahmad Al-Rawashdeh  <b>GROUPOID TECHNIQUES IN MATHEMATICS</b> (Room: F3-040)		
10:30	11:00	Coffee Break (F3- Ground floor)		
11:00	13:00	<b>Applied Mathematics– Session 1</b> Chair: Fawaz Ibrahim Hjouj (Room: F3-040)	<b>Topology– Session 2</b> Chair: Jean Renault (Room: F3-043)	<b>Digital learning solutions with us -Ala Barakat</b> (Room: F3-136)
13:00	14:30	Lunch (F3- Ground floor)		
14:30	15:50	<b>Applied Mathematics – Session 1</b> Chair D. Melouka (Room: F3-040)	<b>Topology– Session 2</b> Chair: A. H. Zakari (Room: F3-043)	<b>Digital learning solutions with us -Ala Barakat</b> (Room: F3-136)
15:50	<b>Transport from F3 to hotel</b> (Transportation pick up at 15:50)			

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

	<b>Day I</b>		
	<b>Monday 21/03/16</b>		
<b>Session Time</b>	<b>Contributed talks</b>	<b>Authors</b>	<b>Presenter</b>
<b>1</b>  12:10-13:50	Global Existence and Uniqueness of Solutions to a Nonlinear Parabolic System	Naïma AISSA, Abdelkhalek Balehouane	Naïma AISSA
	THE LEPTONIC PAIR PRODUCTION IN THE PHOTON INTERACTION WITH ELECTROMAGNETIC FIELD OF LIGHT NUCLEI	Sadah Abdullah al Khateeb	Sadah A. Al Khateeb
	APPROXIMATE ANALYTICAL SOLUTIONS OF SEMI-EXPLICIT HIGHER-INDEX DIFFERENTIAL ALGEBRAIC EQUATIONS BY ADOMIAN DECOMPOSITION METHOD	Brahim Benhammouda	Brahim Benhammouda
	Identification of unknown data in one phase Inverse Stefan problem	Berhail Amel	Berhail Amel
	EXACT SOLUTION OF TIME-FRACTIONAL PARTIAL DIFFERENTIAL EQUATIONS USING LAPLACE TRANSFORM	Naser Al-Qutaifi	Naser Al-Qutaifi
<b>1</b>  15:20-17:00	RELIABILITY GROWTH MODELS FOR SOFTWARE SYSTEMS WITH IMPERFECT DEBUGGING PROCESS	Madhu Jain	Madhu Jain
	FITTED NUMERICAL METHODS VIA SPLINES FOR SINGULARLY PERTURBED DIFFERENTIAL-DIFFERENTIAL EQUATIONS WITH SMALL SHIFT: LAYER AND OSCILLATORY BEHAVIOR	R. Nageshwar Rao and P. Pramod Chakravarthy	R. Nageshwar Rao
	ANISOTROPIC UNIVERSE SPACE-TIME NON-COMMUTATIVITY AND APPLICATION TO PHYSICAL SYSTEMS	Slimane Zaim,	Slimane Zaim
	A comment on "A bi-objective programming approach to solve matrix games with payoffs of Atanassov's triangular intuitionistic fuzzy numbers"	Tina Verma	Tina Verma

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

2  12:10-13:50	SPECIAL CLASSES OF HOMOGENEOUS SEMILOCAL	SUSAN F. EL-DEKEN	SUSAN F. EL-DEKEN
	EMBEDDING INTO FINITELY GENERATED ALGEBRAS	Hamed Alsulami	Hamed Alsulami
	On (m,n)-Closed Ideals of commutative rings	David F. Anderson and Ayman Badawi	Ayman Badawi
	ON MODULES OVER GROUP RINGS OF LOCALLY FINITE GROUPS WITH FINITENESS RESTRICTIONS	Dashkova Olga	Dashkova Olga
	Some invariants of finite partially solvable groups	Shpyrko Olga	Shpyrko Olga
2  15:20-17:00	A note on Clean and Neat Rings	Ibrahim Suleiman	Ibrahim Suleiman
	ENUMERATION OF THE PARTITIONS OF AN INTEGER INTO EXACTLY TWO DISTINCT SIZES OF PARTS	Nesrine Benyahia-Tani, Sadek Bouroubi	Nesrine Benyahia-Tani
	ON A SPECIAL KIND OF CONTINUED FRACTIONS AND REAL QUADRATIC NUMBER FIELDS	Özen ÖZER	Özen ÖZER
	EXTENSION OF THE GROUP $C(n)$ BY MEANS OF THE DIRECT PRODUCT OF TWO CYCLIC GROUPS OF ORDER $p$	Abdullatif Hanono, Dana Saleh	Abdullatif Hanono

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

3  12:10- 13:50	ON SOFT WEAK STRUCTURES	A. H. Zakari, A. Ghareeb and Saleh Omran	A. H. Zakari
	MODELLING EARTHQUAKE MAGNITUDE DATA USING TIME SERIES MODELS: A COMPARISON	Mohammad Nurul Azam, Ismail H. Fathi and N. Al Arifi	Mohammad Nurul Azam
	STATISTICAL MODELING AND FORECASTING THE NUMBER OF STUDENTS IN GENERAL EDUCATION PROGRAM	Manisha M. Kankarej, Ibrakhimjon Rakhimo	Manisha M. Kankarej
	TESTS TO REDUCE TOXICITY OF LEAD BY INTERACTION SELECTIVE: LEAD/ZINC AND LEAD/COPPER; IN VITRO TESTS USING PHASEOLUS-VULGARIS PLANT.	SAHRAOUI Nabil & BE NAMRANE Badrtamam	SAHRAOUI Nabil
	OPTIMAL CONTROL OF SWITCHED SYSTEMS - A POLYNOMIAL APPROACH	Mohamed Ali Hajji and Abdessamad Tridane	Mohamed Ali Hajji
3  15:20- 17:00	Graphical representation of triangular and trapezoidal complex fuzzy numbers	Jeevan Jot Kaur	Jeevan Jot Kaur
	STUDY OF ACCIDENTS SCENARIOS RELATED TO CHEMICAL PROCESS	Benamrane. B.,	Benamrane. B.,
	Bernstein polynomials method for numerical solutions of integro-differential form of the singular Emden-Fowler initial value problems	Abdelkrim Bencheikh and Lakhdar Chiter	Abdelkrim Bencheikh
	A CUTTING POINT TECHNIQUE FOR SECOND ORDER SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS	P. Pramod Chakravarthy, S. Dinesh Kumar and R. Nageshwar Rao	P. Pramod Chakravarthy
	A NEW METHOD FOR SOLVING OF TELEGRAPH EQUATION WITH HAAR WAVELET	Majid Erfanian	Majid Erfanian



	<b>Day II</b>		
	<b>Tuesday 22/03/16</b>		
<b>Session Time</b>	<b>Contributed talks</b>	<b>Authors</b>	<b>Presenter</b>
<b>1</b>    <b>11:00-13:00</b>	PATTERN FORMATION FOR A PREDATOR-PREY MODEL WITH HOLLING TYPE II FUNCTIONAL RESPONSE AND CROSS-DIFFUSION.	R. Yafia, Walid Abid, M. A. Aziz-Alaoui, H. Bouhafa and A. Abichou	R. Yafia
	IMAGE RETRIEVAL USING ITERATIVE ALGORITHM	Suhas P Veetil and Liu Cheng	Suhas P Veetil
	OPTIMIZATION OF VACCINATION AND TREATMENT IN INFLUENZA INFECTION	Abdessamad Tridane, Jeremia White and Tufail Malik	Abdessamad Tridane
	Practical aspects of doing Fourier transformation on acoustic signals used for food quality determination	Stojan Rendeovski	Stojan Rendeovski
	THE EFFECTS OF HUMAN POPULATION MOVEMENTS TO MALARIA SPREAD IN KENYA	Sehjeong Kim	Sehjeong Kim
	Determination of stable and unstable regions of Mathieu equation using the homotopy perturbation method	M. Gh. Saryazdi	M. Gh. Saryazdi
<b>1</b>    <b>14:30-15:50</b>	A REVIEW OF TWO EFFICIENT COMPUTATIONAL PROCEDURES FOR THE DETERMINATION OF THE BASIC REPRODUCTION RATIO IN INFECTIOUS DISEASE MODELS	Olaniyi S Maliki, Bruno O Onyemegbulem	Olaniyi S Maliki
	STATISTICAL METHODS FOR MULTINOMIAL OF ORDINAL DATA	Malika CHIKHI	Malika CHIKHI
	Robust Stability Analysis of a Delayed Inertial Neural Network	Lakshmanan Shanmugam, C. P. Lim, Fathalla A. Rihan and Saeid Nahavandi	Lakshmanan Shanmugam
	Numerical Solution of Nonlinear Fredholm Integro- Differential Equation of Fractional Order by Optimal Homotopy Asymptotic Method	Abdur Rashid and Mohammad Ghoreishi	Abdur Rashid

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

2  11:00- 13:00	FRACTIONAL MAXIMAL FUNCTION ON THE DUAL OF LAGUERRE HYPERGROUP	Taieb Ahmed and Miloud Assal	Taieb Ahmed
	Analytic Functions Spaces with Laguerre Kernels	El-Bachir Yallaoui	El-Bachir Yallaoui
	EXISTENCE OF POSITIVE SOLUTIONS FOR NON-AUTONOMOUS FRACTIONAL DIFFERENTIAL EQUATIONS WITH INTEGRAL BOUNDARY CONDITIONS	Azizollah Babakhani	Azizollah Babakhani
	$(\alpha, \beta)$ -COMMON FIXED POINT RESULTS FOR ADMISSIBLE MAPPINGS OF A GENERAL TYPE CONTRACTION IN $b$ -METRIC SPACES	Mahpeyker Öztürk	Mahpeyker Öztürk
	MAXIMAL NONDISCRETE FUZZY TOPOLOGIES	Ali Jaballah, Moussa Benoumhani	Ali Jaballah
	ON LOWER DECKER SETS AND PSEUDO-CYCLES OF SURFACE-KNOT DIAGRAM	Tsukasa Yashiro	Tsukasa Yashiro
2  14:30- 15:50	TOTALLY REAL PERTURBATIONS AND NON-DEGENERATE EMBEDDINGS OF THE 3-SPHERE	Ali M. Elgindi	Ali M. Elgindi
	THE SLICE PROPERTY AND EQUALIZERS OF DIAGRAMS OF $C^*$ -ALGEBRAS.	Rachid El Harti	Rachid El Harti
	COMMUTATIVITY CRITERIA IN BANACH ALGEBRAS	Cheikh O. HAMOUD	Cheikh O. HAMOUD
	DIFFUSION APPROXIMATION FOR $GX/GY/r$ MACHINING SYSTEM WITH THRESHOLD POLICY FOR MULTI-REPAIRMEN	G.C. Sharma and M. Jain	G.C. Sharma

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

3  11:00-13:00	A FAMILY OF SYMMETRIC DISTRIBUTIONS WITH APPLICATION TO NORMAL DISTRIBUTION	Ayanna Almagambetova, Nazgul Zakiyeva and Ayman Alzaatreh	Ayanna Almagambetova
	SMOOTHING SPLINE ESTIMATOR OF THE REGRESSION FUNCTION WITH TWICE CENSORED DATA	Ilhem Laroussi	Ilhem Laroussi
	Valuation of Currency options in markets with a crunch	Abdulnasser Hatemi-J and Youssef El-Khatib	Abdulnasser Hatemi-J
	On the Options Pricing IN ILLIQUID markets with jumps- A numerical approach	Youssef El-Khatib	Youssef El-Khatib
	EVALUATING OPTIONS UNDER A HYBRID STOCHASTIC VOLATILITY MODEL- A numerical approach	Zororo S. Makumbe, Youssef El-Khatib	Zororo S. Makumbe
	PERFORMANCE ASSESSMENT OF EUROPEAN FOOTBALL TEAMS: USING INPUT ORIENTED STOCHASTIC DATA ENVELOPMENT ANALYSIS MODEL	Basma E. El-Demerdash, Assem A. Tharwat, Ihab A. El-Khodary and Eslam R. Shaban	Basma E. El-Demerdash
3  14:30-15:50	An Efficient meshless method for Solving of Parabolic PDEs with Nonlocal Boundary Conditions	K. Karimi , A. Bahadori mehr	K. Karimi
	NUMERICAL SOLUTION OF THREE COUPLED NONLINEAR SCHRODINGER EQUATIONS	M. S. Ismail, S. H. Alaseri	M. S. Ismail
	THERMAL SHOCK PROBLEM OF TWO-TEMPERATURE GENERALIZED THERMOELASTICITY WITHOUT ENERGY DISSIPATION WITH ROTATION	A. A. El-Bary and Hamdy M. Youssef	A. A. El-Bary
	NUMERICAL SIMULATION of SOLIDIFICATION of STEEL in CONTINUOUS CASTING	Ghania Khenniche, Pierre Spiteri, Salah Bouhouche, Hocine Sissaoui	Ghania Khenniche

Session Time	Day III <span style="float: right;">Wednesday 23/03/16</span>		
	Contributed talks	Authors	Presenter
Poster Session  10:30-11:30	Regularisation of some class of ill posed problems	Ouarda Benamnseur	Ouarda Benamnseur
	Linear Stability Analysis of Magnethohydrodynamic Richtmyer-Meshkov instability in cylindrical geometry	Abeer Bakhsh	Abeer Bakhsh
	GEOMETRIC INTEGRATION WITH APPLICATIONS TO HAMILTONIAN SYSTEMS	Hebatallah Jamil AlSakaji, Anwar Hussein.	Hebatallah Jamil AlSakaji,
	WHEN $\ A^* \otimes A^+ + A^+ \otimes A^*\ _{\lambda}$ IS MINIMAL ?	SAFA MENKAD	SAFA MENKAD
	NUMERICAL SOLUTION OF KAWAHARA EQUATIONS BY USING LAPLACE HOMOTOPE PERTURBATIONS METHOD	Bothayna S. Kashkari	Bothayna S. Kashkari
	Bio-inspired Computational Intelligence hybridized with interior point method to study nonlinear Van der Pol heartbeat dynamics model	Muhammad Asif Zahoor Raja, Fiaz Hussain Shah and Muhammad Ibrahim Syam	Muhammad Ibrahim Syam
	AN INVERSE PROBLEM FOR DELAY DIFFERENTIAL EQUATIONS: PARAMETER ESTIMATION AND SENSITIVITY ANALYSIS	Fathalla A. Rihan	Fathalla A. Rihan
	BACKWARD BIFURCATION FOR SIR EPEDEMIC MODEL WITH CORONA-VIRUS INFECTION	Fathalla A. Rihan, Sanabel M. Al Darwish, Asma Saeed H. Al Neyadi, Gawaher Abdelfattah, Nada T. Ibrahim, Matha G. Al Ahababi, Rabea S. Al Adawi, Shareifah S. Zohari	Fathalla A. Rihan
	NATURAL CONVECTION FLOW NEAR A VERTICAL PLATE WITH SUCTION/INJECTION AND OSCILLATORY BOUNDARY CONDITIONS	Ahmad K. Samaila and Basant K. Jha	Ahmad K. Samaila
	Solitary Wave Solutions of Non-linear Schrodinger Equations using Inverse Scattering and Backlund Transform Method	SHUMAILA JAVED	SHUMAILA JAVED
A BASIS FOR IMPROVING NUMERICAL WEATHER PREDITION USING DOPPLAR RADIAL WINDS	Fathalla A. Rihan, Mohamed N. Anwar, Chris Collier	Mohamed N. Anwar	

Session Time	Day IV <span style="float: right;">Thursday 24/03/16</span>		
	Contributed talks	Authors	Presenter
1  11:00-13:00	ON TOMOGRAPHY WITH LIMITED DATA	Fawaz Ibrahim Hjouj	Fawaz Ibrahim Hjouj
	Exact solution of linear integro-differential equations with weakly singular kernel by using Taylor expansion method	Fernane Khairredine ,Elaggoune Fateh	Fernane Khairredine
	PHONON SPECTRAL DENSITY AND GENERAL NON-MARKOVIAN DYNAMICS OF THE FMO LIGHT-HARVESTING COMPLEX USING ASSOCIATED, GENERALIZED AND EXCEPTIONAL JACOBI POLYNOMIALS	Mahmoud Mahdian	Mahmoud Mahdian
	Fractional Order Generalized Thermo- Viscoelasticity Half- Space Subjected to Ramp Type Heating	Nagwa Helmy	Nagwa Helmy
	TRANSFORMATION EQUATIONS FOR THE FIFTH DIMENSION	M. Helmy Said	M. Helmy Said
	NUMERICAL STUDY OF FREE SURFACE FLOW UNDER A SLUICE GATE	Abdelkrim Merzougui, Abdelkader Laiadi	Abdelkrim Merzougui
1  14:30-15:50	SOLVING THE STURM-LIOUVILLE PROBLEMS USING THE MODIFIED TAYLOR SEREIS METHOD	Fathi M Allan and Ghada Janem	Fathi M Allan
	GLOBAL EXISTENCE AND ASYMPTOTIC BEHAVIOR FOR SOLUTION OF REACTION DIFFUSION SYSTEMS	Dehimi Melouka, Moumeni Abd-El-Kader	Dehimi Melouka
	ON GENERALIZED IDEAL DOUBLE STATISTICAL CONVERGENCE IN TOPOLOGICAL GROUPS	Ekrem SAVAS	Ekrem SAVAS
	MODELING AND NUMERICAL SIMULATION OF ATMOSPHERIC DISPERSION OF POLLUTANT APPLICATION SOFTWARE: ALOHA, PHAST	A.TAMRABET, N. SAHRAOUI	A.TAMRABET

Conference Program -ICM2016 UAEU, Al-Ain, UAE/ Contributed talks

2    11:00- 13:00	SEMIFIELD SPREADS AND BENT FUNCTIONS	Kanat Abdukhalikov	Kanat Abdukhalikov
	GROUP ALGEBRAS WHOSE GROUPS OF NORMALIZED UNITS HAVE EXPONENT 4	V.A. Bovdi, M.A. Salim	V.A. Bovdi
	Convergence Groups of K- Quasiconformal Mappings,	Jianhua Gong	Jianhua Gong
	COUPLED FIXED POINT THEOREM IN C*-ALGEBRAS VALUED METRIC SPACES	Özen ÖZER, Saleh OMRAN	Özen ÖZER
	A simplified approach to find the solution for the intuitionistic fuzzy transportation problem	Akriti Jindal	Akriti Jindal
	SOME PROPERTIES OF LEGENDRE CURVES	Camelia Frigioiu	Camelia Frigioiu
2   14:30- 15:50	INVESTIGATION OF FLOW PAST A CIRCULAR CYLINDER UNDERGOING FIGURE-EIGHT-TYPE MOTION	Qasem M. Al-Mdallal	Qasem M. Al-Mdallal
	A combinatorial result in reliability theory	Simon Cowell	Simon Cowell