

**6<sup>th</sup>**  
**The**  
**SEAMS**  
**GMU 2011**

International Conference  
on Mathematics  
and Its Applications

Yogyakarta - Indonesia, July 12 - 15, 2011



# **The Programme**

## **Conference Schedule Parallel Session**

# CONFERENCE SCHEDULE

Tuesday, July 12 2011	
07:00 – 08:30	Registration Room A1.06, the Faculty of Mathematics and Natural Sciences Gadjah Mada University
08:30 – 09:00	Opening ceremony Photo Session
09:00 – 09:30	Coffee Break
09:30– 10:15	Coffee Break Plenary Session 1: Prof. Ang Keng Cheng Title: <i>A Quasi-Stochastic Diffusion-reaction Dynamic Model for Tumour Growth</i> Moderator : Wono Setya Budhi, Ph.D.
10:15 – 11:00	Plenary Session 2: Prof. Halina France-Jackson Title: <i>*-rings in Radical Theory</i> Moderator : Prof. Dr.Sri Wahyuni, MS.
11:00 – 11:45	Plenary Session 3: Dr.Intan Muchtadi Alamsyah Title: <i>Research on Nakayama Algebras</i> Moderator : Budi Artha Surya, Ph.D.
11:45 – 12:30	Plenary Session 4: Dr. Yudi Soeharyadi Title: <i>How Good is Diffusion?</i> Moderator: Prof. Budi Nurani Ruchjana
12:30 – 13:30	Lunch
13:30 – 15:10	Parallel Session 1
15:10 – 15:40	Coffee Break
15:40 – 17:00	Parallel Session 2

Plenary Sessions : Room A1.06

**Wednesday, July 13 2011**

<b>08:00 – 08:45</b>	<b>Plenary Session 5 :</b> <b>Prof. Sergey Kryzhevich</b> <b>Title: <i>Non Hyperbolic Periodic Points and Chaos</i></b> <b>Moderator: Prof. Dr. Widodo, MS.</b>
<b>08:45 – 09:30</b>	<b>Plenary Session 6:</b> <b>Dr. Jawad Abuihlail</b> <b>Title: <i>Exact Sequences in Non-Exact Categories (An Application to Semimodules)</i></b> <b>Moderator: Prof. Sujit Kumar Sardar</b>
<b>09:30 – 10:00</b>	<b>Coffee Break</b>
<b>10:00 – 10:45</b>	<b>Plenary Session 7:</b> <b>Prof. Drs. Subanar, Ph.D</b> <b>Title: <i>Contribution of Fuzzy Systems for Time Series Analysis</i></b> <b>Moderator: Irwan Endrayanto, M.Sc.</b>
<b>10:45 – 11:30</b>	<b>Plenary Session 8:</b> <b>Prof. Dr. Andreas Rauber</b> <b>Title: <i>Retrievability Measures and What to Do with Them</i></b> <b>Moderator : Dr. Edi Winarko, M.Sc.</b>
<b>11:30 – 12:15</b>	<b>Plenary Session 9:</b> <b>Dr. Svetlana Borovkova</b> <b>Title: <i>Multi-Assets Derivatives : Valuation and Hedging</i></b> <b>Moderator : Prof. Janpou Nee</b>
<b>12:15 – 13:10</b>	<b>Lunch</b>
<b>13:10 – 14:50</b>	<b>Parallel Session 3</b>
<b>14:50 – 15:20</b>	<b>Coffee Break</b>
<b>15:20 – 17:00</b>	<b>Parallel Session 4</b>
<b>19:00 – 22:00</b>	<b>Conference Dinner</b> <b>Venue: Gedung UC UGM</b>

**Plenary Sessions : Room A1.06**

**Thursday, July 14 2011**

<b>08:00 – 08:45</b>	<b>Plenary Session 10: Dr. Murk Bottema Title: <i>Mathematics in Medical Image Analysis</i> Moderator: Dr. Azhari</b>
<b>08:45 – 09:30</b>	<b>Plenary Session 11: Prof. Asep K. Supriatna Title: <i>A Mathematical Model to Estimate the Basic Reproduction Number of Dengue Transmission</i> Moderator: Dr. Muhammad Farchani Rosyid</b>
<b>09:30 – 10:00</b>	<b>Coffee Break</b>
<b>10:00 – 10:45</b>	<b>Plenary Session 12: Assoc. Prof. Ling Keck Voon Title: <i>Multiplexed Model Predictive Control</i> Moderator: Dr. Agah D. Garnadi</b>
<b>10:45 – 11:30</b>	<b>Plenary Session 13: Dr. Salmah Title: <i>The Linear Quadratic Optimal Regulator Problem of Dynamic Game for Descriptor Systems</i> Moderator: Prof. Stanford Shateyi</b>
<b>11:30 – 12:15</b>	<b>Plenary Session 14: Dr. Supama Title: <i>Some Inequalities for Banach Lattices Valued Functions and Applications</i> Moderator: Dr. Jalina Widjaja</b>
<b>12:15 – 17:00</b>	<b>Lunch Excursion to Borobudur (for registered participant only)</b>
<b>18.00 - 22.00</b>	<b>Ramayana Ballet (for registered participant only)</b>

**Plenary Sessions : Room A1.06**

**Friday, July 15 2011**

<b>08:00 – 08:45</b>	<b>Plenary Session 15: Dr. rer.nat. Indah Emilia Wijayanti Title: <i>Clean Rings and Clean Modules</i> Moderator : Dr. Tayebah Hajjari</b>
<b>08:45 – 09:30</b>	<b>Plenary Session 16: Prof Peter Filzmoser Title: <i>Robust Statistic : Concepts, Methods, Applications, and Computation</i> Moderator: Dr. Roden Janson A. David</b>
<b>09:30 – 10:00</b>	<b>Coffee Break</b>
<b>10:00 – 10:45</b>	<b>Plenary Session 17: Dr. Reza Pulungan Title: <i>The Order of Phase-Type Distributions</i> Moderator : Dr. Hanna A.Parhusip</b>
<b>10:45 – 13:10</b>	<b>Lunch</b>
<b>13:10 – 14:30</b>	<b>Parallel Session 5</b>
<b>14:30 – 16:30</b>	<b>Parallel Session 6</b>
<b>16:30 – 17:00</b>	<b>Closing Ceremony</b>

**Plenary Sessions : Room A1.06**



**PARALLEL SESSION I**  
**TUESDAY, JULY 12, 2011**  
**13:30 – 15:10**

ROOM 1	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Ting-Hui Yang</b> : <i>Traveling wave solutions for time-delayed lattice reaction-difusion systems</i></li> <li>2. <b>Bambang Setiahadi</b> : <i>Research on Nonlinear Evolution of Solar Coronal Magnetic Fields</i></li> <li>3. <b>Stanford Shateyi</b> : <i>Successive Linearization Analysis of Unsteady Heat and Mass Transfer from a Stretching Surface Embedded in a Porous Medium with Suction/Injection and Thermal Radiation Effects</i></li> <li>4. <b>Subchan</b> : <i>Robust Control of a Nonlinear Two Wheels Inverted Pendulum Mobile Robot Using Sliding Mode Control</i></li> <li>5. <b>Endar H. Nugrahani</b> : <i>Multilane kinetic model of vehicular traffic system</i></li> </ol>	

ROOM 2	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Krishna pada Das</b> : <i>Harvesting Control Chaotic Dynamic in Predator-prey Model with Disease in preddator</i></li> <li>2. <b>Zenith Purisha</b> : <i>Model of Predator-prey with Infected Prey in Toxical Environment</i></li> <li>3. <b>Rina Ratianingsih</b> : <i>Dynamic Model of Pressure, Temperature and CO2 Concentration: Identification of Stability Parameters Potency</i></li> <li>4. <b>Alexis Erich S. Almocera</b> : <i>Asymptotically Autonomous Subsystems Applied to the Analysis of a Two-Predator One-Prey Population Model</i></li> <li>5. <b>Hennie Husniah</b> : <i>A Mathematical Model of Periodic Maintenance Policy for Two-Dimensional Warranted Product</i></li> </ol>	

ROOM 3	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Rohani Jahja Widodo</b> : <i>Control System in an Applied Mathematics</i></li> <li>2. <b>Jumat Sulaiman</b> : <i>Fourth-Order Newton-Egmsor Iterative Methods Applied To Nonlinear Second-Order Two-Point Boundary Value Problems</i></li> <li>3. <b>Kanoknapa Erawun</b> : <i>Predictor-Corrector Method for Finding the Numerical Solution of the Initial Value Problem of the Ordinary Differential Equation with Singular Point</i></li> <li>4. <b>I Made Eka Dwipayana</b> : <i>The Existence of Periodic Solution on STN Neuron Model in Basal Ganglia</i></li> <li>5. <b>Song Poh Choo</b> : <i>An Empirical Investigation on the Convergence of Growth</i></li> </ol>	

ROOM 4	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Retno Subekti</b> : <i>Black Litterman Model with Theil's Mixed Estimation</i></li> <li>2. <b>Di Asih I Maruddani</b> : <i>Unified Structural Models and Reduced Form Models in Credit Risk by the Yield Spreads</i></li> <li>3. <b>Sutawanir Darwis</b> : <i>History Matching Composite Reservoir Parameters</i></li> <li>4. <b>Budhi Arta Surya</b> : <i>Multi-class Portfolio Optimization using Alternative Risk Measures under Generalized Hyperbolic Framework</i></li> </ol>	

ROOM 5	STATISTICS
<ol style="list-style-type: none"> <li><b>Hare Krishna Nigam</b> : <i>A Study on Degree of Approximation of Functions by <math>(N, p, q)(E, 1)</math> Product Means</i></li> <li><b>Erwin Harahap</b> : <i>Prediction the Cause of Network Congestion using Bayesian Probabilities</i></li> <li><b>Ook Kartiko</b> : <i>Kernel Density Estimation For Heavy-Tailed Distribution</i></li> <li><b>Indira Puteri Kinasih</b> : <i>Two-Dimensional Weibull Failure Modelling</i></li> <li><b>Isnri Kurnia Romadhoni</b> : <i>Maximum Likelihood Estimator of the Exponentiated Pareto Distribution</i></li> </ol>	

ROOM 6	STATISTICS
<ol style="list-style-type: none"> <li><b>Bambang Suprihatin</b> : <i>Consistency and Accuracy of The Bootstrap Estimator Under Kolmogorov Metric</i></li> <li><b>Jasmin-Mae B. Santos</b> : <i>Parameter Estimation of the Cox-Ingersoll-Ross Interest Rate Model Using the Generalized Method of Moments</i></li> <li><b>Nelson Nainggolan</b> : <i>Parameter Estimation of GSTAR <math>(1;1)</math>-ARCH(1) Model using Scoring Method</i></li> <li><b>Indah Rahmawati</b> : <i>Estimation Parameter and Hypothesis Testing of Regression Spatial Lag</i></li> <li><b>Budi Nurani Ruchjana</b> : <i>Spatial Modeling based on Cross Section and Time Series Data</i></li> </ol>	

ROOM 7	ANALYSIS
<ol style="list-style-type: none"> <li><b>Luis Manuel Tovar</b> : <i>Quaternion <math>F(p,q,s)</math> Spaces</i></li> <li><b>Siraj Uddin</b> : <i>Totally Umbilical Proper Slant Submanifold of Sasakian Manifolds</i></li> <li><b>Dennis T. Leyson</b> : <i>On <math>N(k)</math>-Mixed Quasi Einstein Spaces</i></li> <li><b>Wono Setya Budhi</b> : <i>Boundedness of the Bimaximal Operator and Bifractional Integral Operators in Generalized Morrey Spaces</i></li> <li><b>Nur Khusnussa'adah</b> : <i>The Representation Theorem for Continuous Linear Functionals on Orlicz Spaces</i></li> </ol>	

ROOM 8	ALGEBRA
<ol style="list-style-type: none"> <li><b>Roden Janson A. David</b> : <i>Numerical Approximation of the Eigenvalues of Unitary matrix Pencil</i></li> <li><b>Sujit Kumar Sardar</b> : <i>On Semiring <math>S_2 = \begin{pmatrix} R &amp; \Gamma \\ S &amp; L \end{pmatrix}</math></i></li> <li><b>Diane Christine P. Pelejo</b> : <i>The Sum of Involutory Matrices</i></li> <li><b>Farida Noor Chasanah</b> : <i>Non Singular Linear Maps Preserving Square Zero Matrices in Both Directions</i></li> <li><b>Darmajid</b> : <i>Degeneration for Finite Dimensional Representations of Quivers</i></li> </ol>	



**PARALLEL SESSION 2**  
**TUESDAY, JULY 12, 2011**  
**15:40 – 17:00**

ROOM 1	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Agah D. Garnadi</b> : <i>A Lepskij-type stopping-rule for Modified Frozen Iteratively Regularized Gauss-Newton Method</i></li> <li>2. <b>Bayarbat Turmunkh</b> : <i>Application of Global Optimization Approach Algorithms</i></li> <li>3. <b>Aini Janteng</b> : <i>Coefficient Estimates for a Subclass of Starlike Functions with Respect to Other Points</i></li> <li>4. <b>Zuherman Rustam</b> : <i>Intrusion Detection System Using Kernel Perceptron</i></li> </ol>	

ROOM 2	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Novriana Sumarti</b> : <i>Technology Migration Analysis of Mobile Phone Industry using Real Option Approach</i></li> <li>2. <b>Norazura Ahmad</b> : <i>Modeling Emergency Department Capacity Planning Using Hybrid Simulation</i></li> <li>3. <b>Fajar Adi Kusumo</b>: <i>Recalibrating Scorecards: A Case Study of Small Banks in Indonesia</i></li> <li>4. <b>I Wayan Suletra</b> : <i>Optimum Locations of Multi-Providers Joint Base Station by Using Set-Covering Integer Programming</i></li> </ol>	

ROOM 3	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Carlene Pilar-Arceo</b> : <i>Boundary Controllability of the St. Venant Equations Between Unsteady States</i></li> <li>2. <b>Maisarah Haji Mohd</b> : <i>Generalized Janowski Starlike and Close-to-starlike Logharmoni</i></li> <li>3. <b>Victoria May E. Paguio</b> : <i>Dynamics of an inflammation Model using Bifurcation Analysis and the Matrix Lambert W Function</i></li> <li>4. <b>Noorma Yulia Megawati</b> : <i>Safety Analysis of Timed Automata Hybrid Systems with SOS for Complex Eigenvalues</i></li> </ol>	

ROOM 4	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Isnandar Slamet</b> : <i>Lattice path Approach for Incomplete Busy Periods Analysis of M/G/1 Queues using C2 Coxian Distribution</i></li> <li>2. <b>Chitaranjan Sharma</b> : <i>Dynamic Routing in An Mb/M/I Queuing System</i></li> <li>3. <b>Zahedi</b> : <i>Integer Relaxation in Backward Batch Sceduling Problem with Batching and Sequencing in Single Formulation to Minimize Total Actual Flow Time</i></li> <li>4. <b>Irwan Endrayanto</b> : <i>Mathematical Model for Optimal Network of Signalized Intersections in Urban Area</i></li> </ol>	

ROOM 5	STATISTICS
<p>1. <b>Janivita Joto Sudirham</b> : <i>Pricing Finite-Maturity American Put Option Under Tempered Stable Levy Processes</i></p> <p>2. <b>Mohammad Jahangir Hosseinpour</b> : <i>Spectral Legendre Collocation Method for Solving Black-Scholes Equation with European Option</i></p> <p>3. <b>Muhammad Syamsuddin</b> : <i>Life insurance products under stochastic mortality assumptions: A Bayesian analysis approach</i></p> <p>4. <b>Hasih Pratiwi</b> : <i>Total Claim Amount in Non-Life Insurance for the Large Claim Case</i></p>	

ROOM 6	STATISTICS
<p>1. <b>Noemi Barcial-Torre</b> : <i>Modeling Interest Rates Using a New Wavelet Based on Morlet and Mexican Hat Wavelets</i></p> <p>2. <b>Muslim</b> : <i>Estimating the Macroeconomic Factors Effect of Shape Yield Curve</i></p> <p>3. <b>Ferry Jaya Permana</b> : <i>Basket and Spread Options under Variance Gamma Model</i></p> <p>4. <b>Kuntjoro Adji Sidarto</b> : <i>Valuing Employee Stock Options with Monte Carlo Method</i></p>	

ROOM 7	COMPUTER SCIENCES
<p>1. <b>Diyan Parwatiningsyas</b> : <i>Implementation of Mathematic Model on Processing Digital Image for Data Fusion of Remote Sensing</i></p> <p>2. <b>Ismail Djakaria</b> : <i>Principal Component Analysis as Input Processing for The Classification Remote Sensing Data</i></p> <p>3. <b>Janpou Nee</b> : <i>The Global Behaviour of Certain Turing System</i></p> <p>4. <b>Reza Pulungan</b> : <i>The Minimal Representations of Erlang Distributions under Three Operations</i></p>	

ROOM 8	MATHEMATICS EDUCATION
<p>1. <b>Ahmad Modabber</b> : <i>A survey on From Where to Where in Financial Mathematics</i></p> <p>2. <b>Andi Andong</b> : <i>Characteristics of Cognitive Style Students Solve Problems in Mathematics Divergent</i></p> <p>3. <b>Leonard</b> : <i>Differences Types Of Schools and The Effect on The Results of Studying Mathematics by Controlling The Ability To Think Positively</i></p>	

**PARALLEL SESSION 3**  
**WEDNESDAY, JULY 13, 2011**  
**13:10 – 14:50**

ROOM 1	APPLIED
<p>1. <b>Suharsono</b> : <i>Mathematical Analysis of Fluid Flow Through Rectangular Microchannel With Slip Boundary Under Constant Pressure Gradient</i></p> <p>2. <b>Jariya Pipatsawet</b> : <i>Temperature Rise of the Earth</i></p> <p>3. <b>Bambang Setiahadhi</b> : <i>Two Dimensional MHD Simulation when a Comet Entering Heliospheric Magnetic Fields: Warning to Natural Space Debris</i></p> <p>4. <b>Hogenrich Damanik</b> : <i>A Monolithic FEM Newton-multigrid Approach for Viscoelastic Flows</i></p> <p>5. <b>Toni Bakhtiar</b> : <i>Optimization Problem in Inverted Pendulum System with Oblique Track</i></p>	

ROOM 2	APPLIED
<p>1. <b>Nuning Nuraini</b> : <i>A Simple Diffusion Model of Plasma-Leakage in Dengue Infection</i></p> <p>2. <b>Tri Sri Noor Asih</b> : <i>Mathematical Modeling of HPV Infection Cervical Cancer</i></p> <p>3. <b>Wuryatmo Sidik</b> : <i>A Cross species avian-human influenza model: The effects of human behaviours on the disease spread and control</i></p> <p>4. <b>Gunarjo Suryanto Budi</b> : <i>Mathematical Model on Numerical Simulation of Natural and Mixed Convection</i></p>	

ROOM 3	APPLIED
<p>1. <b>Normayati Sumanto</b> : <i>Application of Fuzzy Multiobjective Linear Programming on Supplier Selection Problem and its Computer Programming</i></p> <p>2. <b>Putu Wira Angriyasa</b> : <i>Non-invasive Intracranical Pressure Classification using Fuzzy C-MeanI</i></p> <p>3. <b>Irmeilyana</b> : <i>Preprocessing and Probing Techniques in Simplifying Open Capacitated Vehicle Routing Problem (OCVRP) Model (Case Study: Rubbish Transportation in Kecamatan Sukarami Palembang City)</i></p> <p>4. <b>Sisca Octarina</b> : <i>The Income Optimization of Bus Rapid Transit (BRT) Trans Musi Palembang by Increasing the Operations Hours using Goal Programming Approach</i></p> <p>5. <b>Indarsih</b> : <i>Expected Value Approach for Solving Multi-objective Linear Programming with Fuzzy Random Parameter</i></p>	

ROOM 4	STATISTICS
<p>1. <b>Bertoto Eka Firmansyah</b> : <i>Modelling and Mapping Illiterate Figures in East Java province with Spatial Regression Approach</i></p> <p>2. <b>Chu Jenq Fei</b> : <i>Evaluating the Performance of Inflation Targeting</i></p> <p>3. <b>Farhad Dastmalchi Saei</b> : <i>Solving Black-Scholes Equation by using Linear Interpolation Method with Estimate Volatility Parameter</i></p> <p>4. <b>Sri Haryatmi Kariko</b> : <i>Parallel Nonparametric Regression Curves</i></p> <p>5. <b>Wahyu Wibowo</b> : <i>Computing of Spline Estimator in Multiresponse Nonparametric Regression</i></p>	

ROOM 5	ANALYSIS
<ol style="list-style-type: none"> <li>1. <b>Kelvin A. Lagota</b>: <i>Symmetric expressions <math>M</math> of order <math>2n</math> with essential spectrum and deficiency index <math>n+3</math></i></li> <li>2. <b>Haryadi</b>: <i>Topology on Henstock-Kurzweil Integrable Space</i></li> <li>3. <b>Atok Zulijanto</b>: <i>An application of zero index to sequences of Baire-1 functions</i></li> <li>4. <b>Nanang Susyanto</b>: <i>Fermat and Euler's Theorem in Gaussian Integer System</i></li> </ol>	

ROOM 6	ALGEBRA
<ol style="list-style-type: none"> <li>1. <b>Gary Lineker</b>: <i>Radio Labeling of Generalized Petersen Graph</i></li> <li>2. <b>Tri Atmojo Kusmayadi</b>: <i>On The Circumference of Connected Graphs</i></li> <li>3. <b>Adiwijaya</b>: <i>A Classification of the Corona Product of a Complete Graph Based on <math>f</math>-Coloring</i></li> <li>4. <b>Sri Kuntari</b>: <i>The Eccentric Digraph of <math>P_n \times P_m</math> Graph</i></li> <li>5. <b>Mania Roswitha</b>: <i>Enumerating of Possible <math>H</math>-magic Coverings on Complete Bipartite Graphs</i></li> </ol>	

ROOM 7	ANALYSIS
<ol style="list-style-type: none"> <li>1. <b>Jalina Widjaja</b>: <i>Existence and Uniqueness of Solutions of Diffusive Nicholson's Blowflies Equations with Distributed Delay and Impulses</i></li> <li>2. <b>Rizky Rosjanuardi</b>: <i>Primitive Ideal spaces of Toeplitz Algebras</i></li> <li>3. <b>Diah Junia Eksi Palupi</b>: <i>A Continuous Linear Representation of Topological Quotient Group</i></li> <li>4. <b>Sumardiyono</b>: <i>On the Toeplitz Dual of Function Spaces</i></li> <li>5. <b>Ch. Rini Indrati</b>: <i>Regulated Functions in the <math>n</math>-dimensional Space</i></li> </ol>	

ROOM 8	ALGEBRA
<ol style="list-style-type: none"> <li>1. <b>Fatmawati</b>: <i>Normalized <math>H \square</math> Coprime Factorization for Infinite-Dimensional Systems</i></li> <li>2. <b>Harina O. L. Monim</b>: <i>Construction of a Complete Heyting Algebra for Any Lattice</i></li> <li>3. <b>Jryl Maralit</b>: <i>Leonard Triples from Leonard Pairs Constructed from the Standard Basis of the Lie Algebra <math>SL_2</math></i></li> <li>4. <b>Tayebeh Hajjari</b>: <i>Similarity Measure for Ranking Fuzzy Numbers</i></li> <li>5. <b>Eric Anthony C. Arances</b>: <i>On the Ideal Class Group of Monogenic Cubic Fields</i></li> <li>6. <b>Andy Rudhito</b>: <i>Application of Fuzzy Number Algebra to Closed Serial Queuing Network with Fuzzy Activity Time</i></li> </ol>	

**PARALLEL SESSION 4**  
**WEDNESDAY, JULY 13 2011**  
**15:20 – 17:00**

ROOM 1	APPLIED
<ol style="list-style-type: none"> <li>1. <b>La Zakaria</b> : <i>A Scheme of 10th Order Implicit Runger-Kutta Method to Solve the First of Initial Value Problems</i></li> <li>2. <b>Syamsuddin Toaha</b> : <i>Stability Analysis and Optimal Harvesting of Predator-Prey Population Model with Time Delay and Constant Effort of Harversting</i></li> <li>3. <b>Danny Wuysang</b> : <i>Verifying Privacy-Type Properties in Electronic Ballot Transmission Protocols using Applied Pi-Calculus</i></li> <li>4. <b>D.L. Crispina Pardede</b> : <i>Logic Approach Towards Formal Verification of Cryptographic Protocol</i></li> <li>5. <b>Nordin Haji Mohamad</b> : <i>Optimization Model for Estimating Agricultural Productivity Growth: A Global Comparison</i></li> </ol>	

ROOM 2	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Monos Naidoo</b> : <i>Applications of mathematic to The Construction and Modeling of Astrophysical Scenarios, in particular, the merger of Compact Binaries</i></li> <li>2. <b>Lorna Almocera</b> : <i>Limiting Behavior Dynamics of a Three-Species Population Model with a Beddington-DeAngelis Functional Response</i></li> <li>3. <b>Shahid Saeed Siddiqi</b> : <i>Linear Ternary non Interpolating Subdivision Scheme</i></li> <li>4. <b>Solikhatusun</b> : <i>Fuzzy Controller Design on Model of Motion System of the Satellite Based on Linear Matrix Inequality</i></li> </ol>	

ROOM 3	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Mahmud Yunus</b> : <i>Morphological Wavelet Frame Decomposition</i></li> <li>2. <b>Ismail Bin Mohd</b> : <i>Error Estimation in the Optimization Algorithm Based on Chebyshev Polynomials</i></li> <li>3. <b>Mohamad Fatekurohman</b> : <i>Approximation of Bivariate Censored Data Problem Using Intersection Graph</i></li> <li>4. <b>Diaz Fitra Aksioma</b> : <i>Spatial Autocorrelation and 3P-Weibull Spatial Survival Model of the HIV/AIDS Occurance in East Java</i></li> <li>5. <b>Sumardi</b>: <i>Level-set-like Method for Computing Multi-valued Solutions to Nonlinear Two Channels Dissipation Model</i></li> </ol>	

ROOM 4	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Edisanter Lo</b> : <i>Detecting Outlier in Hyperspectral Imaging Using Multivariate Statistical Modeling and Numerical Optimization</i></li> <li>2. <b>Rifan Kurnia</b> : <i>Interest Rate Modelling and Valuation of Callable Bond Using Binomial Tree</i></li> <li>3. <b>Tai Pih Nee</b> : <i>The Dynamic of Interest Rate Pass-Through: The case Study in Asian Context</i></li> <li>4. <b>Wiwiek Setya Winahju</b> : <i>Global Optimization of Third-Order Polynomial Response Surface</i></li> <li>5. <b>Adhitya Ronnie Effendie</b> : <i>Two-Dimensional Warranty Policies Using Copula</i></li> </ol>	

ROOM 5	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Valeriana Lukitosari</b> : <i>Modelling of Spare Part Inventories, Repair capacity and maintenance Policy</i></li> <li>2. <b>Kariyam</b> : <i>Clustering of Dichotomous Variables and Its Application to Simplifying Dimension of Quality Variables of Building Reconstruction Process</i></li> <li>3. <b>Ahmad Faiz bin Ab Aziz</b> : <i>A Preliminary Attempt to Use Hidden Markov Model for Human Security</i></li> <li>4. <b>Yekti Widyaningsih</b> : <i>Ordering Dually in Triangles (ORDIT) and Hotspot Detection in Generalized Linear Model for Poverty and Infant Health in East Java</i></li> <li>5. <b>Heri Kuswanto</b> : <i>Artificial ensemble forecasts: A new perspective of weather forecast in Indonesia</i></li> </ol>	

ROOM 6	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Samingun Handoyo</b> : <i>Wavelet Radial Basis Function (WRBF) For Prediction Of Non Stationary Time Series</i></li> <li>2. <b>Alva Benedict Balbuena</b> : <i>Persistent Homology in Time-Delay Reconstruction of Time Series</i></li> <li>3. <b>Dina Indarti</b> : <i>The Effect of Changing Measure in Interest Rates Models</i></li> <li>4. <b>Nurkaromah Dwidayati</b> : <i>Convergence Properties of The Em Algorithm In the Mixture Model with Missing Data</i></li> <li>5. <b>Dedi Rosadi</b> : <i>Multivariate Time Series Analysis using Rcmdr Plugin. Econometrics and its Application for Finance</i></li> </ol>	

ROOM 7	MATHEMATICS EDUCATION
<ol style="list-style-type: none"> <li>1. <b>Warli</b> : <i>Differences in Creativity Qualities Between Reflective and Impulsive Students in Solving Mathematics Problems</i></li> <li>2. <b>Effandi Zakaria</b> : <i>Assessing the Mathematical Beliefs of Pre-Service Mathematics Teachers In Malaysia</i></li> <li>3. <b>Yaya S. Kusumah</b> : <i>Study of Mathematics Teachers' Competency of International Standar Schools in West Java -Indonesia</i></li> </ol>	

ROOM 8	COMPUTER SCIENCES
<ol style="list-style-type: none"> <li>1. <b>Nwe Nwe Hlaing</b> : <i>An Approach for Extraction Data Record from Web Page Based on Visual Features</i></li> <li>2. <b>Suprpto</b> : <i>A Framework for an LTS Semantics for PROMELA</i></li> <li>3. <b>Zar Chi Su Su Hlaing</b> : <i>An Ant Colony Optimization Algorithm for Solving Traveling salesman Problem</i></li> <li>4. <b>Cecilia E. Nugraheni</b> : <i>Formal Specification of Parameterized Multi Agent Systems</i></li> <li>5. <b>Ary Noviyanto</b> : <i>A Comparison Framework for Fingerprint Recognition Methods</i></li> </ol>	

## PARALLEL SESSION 5

FRIDAY, JULY 15 2011

13:10 – 14:30

ROOM 1	APPLIED
	<ol style="list-style-type: none"><li><b>Maitree Podisuk</b> : <i>Application of Simple Iterative Ordinary Differential Equations</i></li><li><b>Holmi Noviana</b> : <i>Review of The Public Key Diophantine Cryptosystem</i></li><li><b>Jenny Irna Eva Sari</b> : <i>Chaotic Substitution Box (S-Box) with Piecewise Linear Chaotic Map (PLCM)</i></li><li><b>Widowati</b> : <i>Dynamic Analysis of Ethanol, Glucose, and Saccharomyces for Batch Fermentation</i></li><li><b>Husty Serviana</b> : <i>A Model for Filariasis with Delay Distribution</i></li></ol>

ROOM 2	APPLIED
	<ol style="list-style-type: none"><li><b>Alfi Yusrotis</b> : <i>Structure Sequence Analysis of DNA H1N1 and H5N1 Virus Using Super Pairwise Alignment Methods</i></li><li><b>Trisilowati</b> : <i>An improved model of tumour-immune system interaction</i></li><li><b>Nughthoh Arfawi Kurdhi</b> : <i>Global Stability of Virus Dynamics Models and The Effects of CTL and Antibody Responses</i></li><li><b>Lina Aryati</b> : <i>Global Stability of an SIR Epidemic Model with Nonlinear Incidence and Logistic Growth for the Susceptible</i></li></ol>

ROOM 3	APPLIED
	<ol style="list-style-type: none"><li><b>Muhaimin Ismoen</b> : <i>Computational on Local Nonsimilar Flow, Heat and Mass Transfer Over a Wedge in the Present of Thermophoresis and Variable Viscosity</i></li><li><b>Divo D. Silalahi</b> : <i>Effect of Rainfall and Global Radiations on Oil Palm Yield in Two Contrasted Regions of Sumatera, Riau and Lampung, using Transfer Function</i></li><li><b>Dylmoon Hidayat</b> : <i>Continuously Translated Framelet</i></li><li><b>Fajar Adi Kusumo</b> : <i>Analysis of a Higher Dimensional Singularly Perturbed Conservative System: The Unperturbed Case</i></li><li><b>Hanna A.Parhusip</b> : <i>Modelling on Lecturers' Performance with Hotteling-Harmonic-Fuzzy</i></li></ol>

ROOM 4	STATISTICS
	<ol style="list-style-type: none"><li><b>Sukono</b> : <i>Value-at-Risk by Non Constant Volatility and the Long memory Effect for Managing Tourism in Yogyakarta</i></li><li><b>Rukun Santoso</b> : <i>Heteroscedastic Time Series Model by Wavelet Transform</i></li><li><b>Nazihah Ahmad</b> : <i>Classification of Epileptic Data Using Fuzzy Clustering</i></li><li><b>Walid</b> : <i>Simulating a Class of Stationary Gaussian Processes using the Davies-Harte Algorithm, with Application to Long Memory Processes</i></li></ol>

ROOM 5	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Anang Kurnia</b> : <i>Small Area Inference for Positively Skewed</i></li> <li>2. <b>Jaka Nugraha</b> : <i>Maximum Likelihood Estimator of Probit Model on Multiariate Binary Response</i></li> <li>3. <b>Zetty Ain Kamaruzzaman</b> : <i>Empirical Properties and Mixture of Distributions: Evidence from Bursa Malaysia Stock Market Indices</i></li> <li>4. <b>Danang Teguh Qoyimmi</b> : <i>The n-year Life Annuity Model Under Binomial Interest Rate Model</i></li> </ol>	

ROOM 6	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Tarno</b> : <i>Analysis of Financial Time Series Data with GARCH Effect using Wavelet Neural Network</i></li> <li>2. <b>Danardono</b> : <i>Generating Time-to-event Data Conditional on Time-dependent Covariates</i></li> <li>3. <b>Dwi Ayu Lusia</b> : <i>New Weighted High Order Fuzzy Time Series for Inflation Prediction</i></li> <li>4. <b>Herni Utami</b> : <i>Second Order Least Square Estimation in ARCH Model</i></li> </ol>	

ROOM 7	ANALYSIS
<ol style="list-style-type: none"> <li>1. <b>Elvina Herawaty</b>: <i>Superposition Operator From <math>\ell\Phi</math> to <math>\ell 1</math></i></li> <li>2. <b>Iswanti</b> : <i>A Topology on The Linear Space <math>L_c(X,Y)</math> where <math>X</math> and <math>Y</math> are Metric Linear Spaces</i></li> <li>3. <b>Edy Nurfalih</b> : <i>Some Properties of Khintchine Integral on Banach Space-valued Function</i></li> <li>4. <b>Dewi Kartika Sari</b> : <i>Compactness Space Which is Induced by Symmetric Gauge</i></li> </ol>	

ROOM 8	ALGEBRA
<ol style="list-style-type: none"> <li>5. <b>Sri Wahyuni</b> : <i>On Weakly Supplemented Modules</i></li> <li>6. <b>Nikken Prima Puspita</b> : <i>Functor of Category Modules as Monads and Comonads Structures</i></li> <li>7. <b>Erma Suwastika</b> : <i>Polynomials over <math>G</math>-Dedekind Prime Rings</i></li> <li>8. <b>Suprpto</b> : <i>On <math>\tau[M]</math>-Injektive Modules</i></li> </ol>	



PARALLEL SESSION 6

FRIDAY, JULY 15 2011

14:30 – 16:10

ROOM 1	APPLIED
<ol style="list-style-type: none"> <li>1. <b>Muhammad Farchani Rosyid</b> : <i>On the Mechanical Systems with Non-holonomic Constraints: the Motion of a Snakeboard on a Spherical Arena</i></li> <li>2. <b>Susilo Hariyanto</b> : <i>Non Homogen Abstract Degenerate Cauchy Problem : The ounded Operator On The Non Homogen Term</i></li> <li>3. <b>Imam Solekhuudin</b> : <i>A DRBEM for Steady Infiltration from Periodic Flat Channels with Root Water Uptake</i></li> <li>4. <b>Joice Ruth Juliana</b> : <i>A Diffusion Equation for the Dynamics of United States dollar Relative to Indonesia Rupiah</i></li> <li>5. <b>Ishak Hashim</b> : <i>Conjugate Natural Convection in an Open-ended Porous Square Cavity</i></li> </ol>	

ROOM 2	APPLIED & COMPUTER SCIENCES
<ol style="list-style-type: none"> <li>1. <b>Beni Utomo</b> : <i>The Implementation of Collage Theorem using Quadtree Method</i></li> <li>2. <b>Esti Rahmawati Agustina</b> : <i>Analysis of CryptO-0N Protocol using Logic Approach</i></li> <li>3. <b>Dwi Ertiningsih</b> : <i>Optimization of Integrated Inventory Modeling for Replenishment Deteriorating Item with Just in Time (JIT) Delivery Technique</i></li> </ol> <p><b>Computer sciences</b></p> <ol style="list-style-type: none"> <li>1. <b>Budyono Saputro</b> : <i>Speaker Recognition Using Perceptron</i></li> <li>2. <b>Faizah</b> : <i>Prediction of Epitope Location Using Fuzzy System</i></li> <li>3. <b>Azhari</b> : <i>A Review and Comparison of Semantic Search Engines Distribution</i></li> </ol>	

ROOM 3	ALGEBRA
<ol style="list-style-type: none"> <li>1. <b>Samsul Arifin</b> : <i>Characteristics of IBN, Rank Condition, and Stably Finite Rings</i></li> <li>2. <b>Alireza Gilani</b> : <i>Quasi q-ideals in BCI-algebras</i></li> <li>3. <b>Titi Udjiani SRRM</b> : <i>The Existence of Moore Penrose Inverse in Rings with involution</i></li> <li>4. <b>Khurul Wardati</b> : <i>The Cuntz-Krieger Uniqueness Theorem of Leavith Path Algebras</i></li> <li>5. <b>Yeni Susanti</b> : <i>On Sets Related to Clones of Quasilinear Operations</i></li> </ol>	

ROOM 4	ALGEBRA
<ol style="list-style-type: none"> <li>1. <b>Ricky Aditya</b> : <i>Construction of rate <math>t/2t</math> Convolutional Codes with Large Free Distance via Linear System approach</i></li> <li>2. <b>Trubus</b> : <i>Super Edge-antimagicness for a Family of Connected and Disconnected Graphs</i></li> <li>3. <b>Diari Indriati</b> : <i><math>L(d,2,1)</math>-Labeling of Sun Graphs and Star</i></li> <li>4. <b>Abidin Kilic</b> : <i>Transformation of Platonic Solids with Geometric Algebra</i></li> <li>5. <b>Karyati</b> : <i>The Fuzzy Regularity of Bilinear Form Semigroups</i></li> </ol>	

ROOM 5	COMPUTER SCIENCES
<ol style="list-style-type: none"> <li>1. <b>Renier G. Mendoza</b> : <i>Reconstructing Images in Electrical Impedance Tomography using Hybrid Genetic Algorithms</i></li> <li>2. <b>Marji</b> : <i>Improving computation speed of the K-Nearest-Neighbor Based Association Algorithm (KNNBA) using Structured Query Language</i></li> <li>3. <b>Ani Dijah Rahajoe</b> : <i>A Survey of Methods for Monitoring Association Rule Behaviour</i></li> <li>4. <b>Irlandia Ginanjar</b> : <i>Analyzing Objects, Object Characteristics and Assessor in Sorting Task and Characteristics Data Using Hybrid Distatis</i></li> <li>5. <b>Edi winarko</b> : <i>STORE-TP: A Tool for Storing, Retrievin Visualizing Sequential Patterns</i></li> </ol>	

ROOM 6	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Dwi Winarsih</b> : <i>Bidder Valuation Function and Number of Bidder : A Case of Trapezoidal Distribution</i></li> <li>2. <b>Fajriya Hakim</b> : <i>Recommendation Analysis Based on Soft Set</i></li> <li>3. <b>Gunardi</b> : <i>Warrant Pricing Model with Payout Ratio and Default Probability</i></li> <li>4. <b>Udayanto Dwi Atmojo</b> : <i>Steepest Descent Least Mean Square Algorithm (LMS) Based Adaptive Filter for Noise Cancellation in Speech Signals</i></li> <li>5. <b>Buyung Sarita</b> : <i>Spatial Probability Density Function of Gold Price Dynamics</i></li> </ol>	

ROOM 7	STATISTICS
<ol style="list-style-type: none"> <li>1. <b>Malim Muhammad</b>: <i>Fixed Income Portofolio Management</i></li> <li>2. <b>Edi Cahyono</b> : <i>Stocks and Currency Dynamics: Financial, Economic, Statistical and Mathematical points of view</i></li> <li>3. <b>Abdurakhman</b> : <i>Optimization Curve Return on Bonds Model Bezier</i></li> <li>4. <b>Nurvita Arumsari</b> : <i>Modelling Case of Diarrhea in Sumedang District with Geographically Weighted Regression (GWR) approach in Achieving Open Defecation Free (ODF) Target</i></li> </ol>	

ROOM 8	ANALYSIS
<ol style="list-style-type: none"> <li>1. <b>Danang Eko Nuryanto</b> : <i>A Complex Empirical Orthogonal Function Analysis for Combine Two Different Variables</i></li> <li>2. <b>Rangga Ganzar Noegraha</b> : <i>Using Elementary Linear Algebra and Calculus to Find Direction on Globe</i></li> <li>3. <b>Manuharawati</b> : <i>Locally Small Riemann Sums Properties of a Vector-valued Function in Locally Compact Metric Space</i></li> <li>4. <b>Admi Nazra</b> : <i>A Lower-bound of the Number of Diffeomorphism Classes of Real Bott Manifolds</i></li> </ol>	

**PARALLEL SESSION 6**  
**FRIDAY, JULY 15 2011**  
**14:30 – 16:10**  
**ROOM 9**

**STATISTICS, APPLIED & ALGEBRA**

1. **Scolastika Mariani:** *Variance of Error Distribution of Dynamics of United States Dollar Relative to Indonesia Rupiah*
2. **Maukar :** *Combinatorial Tribonacci Strings*
3. **Delta Arif Rahman:** *Generalization Matching*
4. **Siti Fauziah :** *The Squences Comparison of DNA Avian Flu Virus and Influenza A Virus Using Tree Diagram Method*