EASIAM 2012: DAY 1 (June 25, 2012)

Time						
8:00-9:00		Conference Registration @Astro-Math. 1F				
9:00-9:30		Opening @Auditorium, Astro-Math.				
		Host: I-Liang Chern				
		Keynote Talk @Auditorium, Astro-Math.				
		Session Chair: Hisashi Okamoto				
9:30-10:30		**Linda Petzold** (Department of Mechanical Engineering, University of California Santa Barbara, USA), Spatial Stochastic Amplification in Cell Polarization				
10:30-10:40		Coffee				
		Invited Talks @Auditorium, Astro-Math.				
		Session Chair: Zhong-Ci Shi				
10:40-11:20		**Weiqing Ren** (Department of Mathematics, National University of Singapore and IHPC, Singapore), The string method for the study of rare events				
11:20-12:00	Conference Registration @Astro-Math. 1F	**Hitoshi Arai** (Graduate School of Mathematical Sciences, The University of Tokyo, Japan), Mathematical models of visual information processing and applications to visual illusions				
12:00-12:05		Group Photo @Astro-Math. 1F				
12:05-13:30		Lunch				
		Student Paper Prize Presentations @Auditorium, Astro-Math.				
		Session Chair: Hisashi Okamoto				
13:30-14:00		**Xuanchun Dong** (Department of Mathematics, National University of Singapore, Singapore), Analysis and comparison of numerical methods for the Klein-Gordon equation in the nonrelativistic limit regime				
14:00-14:30		**Zhenning Cai** (School of Mathematical Sciences, Peking University, China), Numerical Regularized Moment Method of Arbitrary Order for Boltzmann-BGK Equation				
14:30-15:00		**Seonjeong Lee** (Department of Mathematical Sciences, Seoul National University, Republic of Korea), An Optimal Estimation of Piecewise Constant Paramter Functions in ODEs				
15:00-15:30		Coffee				
		Parallel Session 1: Applied Partial Differential Equations	Parallel Session 2: Numerical Analysis	Parallel Session 3: Applied Numerical Linear Algebra	Parallel Session 4: Mathematical Analysis of Engineering Problems	Parallel Session 5: Fluid Mechanics
		@Room 101, Astro-Math.	@Room 102, Astro-Math.	@Room 202 Astro-Math.	@Room 204, Astro-Math.	@Room 201, Astro-Math.
		Session Chair: Leevan Ling	Session Chair: Chi-Tien Lin	Session Chair: Yusaku Yamamoto	Session Chair: Hitoshi Arai	Session Chair: Yin-Tzer Shih
15:30-15:50 A		**Zhonghua Qiao** (Department of Applied Mathematics, The Hong Kong Polytechnic University, Hong Kong), Energy stability analysis and adaptive time-stepping strategy for nonlinear diffusion equations	**Suh-Yuh Yang** (Department of Mathematics, National Central University, Taiwan), A new stabilized finite element method for the reaction-convection-diffusion equations	**Akira Imakura** (Center for Computational Sciences, University of Tsukuba, Japan), On convergence behavior of the GMRES(m) method with a hybrid restart technique	**Ling-Huang Yu** (Department of Mathematics, National Chung Cheng University, Taiwan), Vibration of a Standing Plate with Internal Crack	**Xiaolin Li** (Department of Applied Mathematics and Statistics, SUNY at Stony Brook, USA), Front Tracking on Fabric Modeling and Application to Parachute Simulation
15:50-16:10 B		**Wen-Ching Lien** (Department of Mathematics, National Cheng Kung University, Taiwan), Nonlinear Stability of Spherical Self-Similar Flows to the Compressible Euler Equations	**Zanariah Abdul Majid** (Department of Mathematics, Universiti Putra Malaysia, Malaysia), Five step block method for solving general second order ODEs directly	**Lei Du** (Faculty of Engineering, Information and Systems, University of Tsukuba, CREST/JST, Japan), IDR(s) for linear systems with multiple shifts and multiple right-hand sides	**Teng-Yao Kuo** (Ph. D. Program in Mechanical and Aeronautical Engineering, Feng Chia University, Taiwan), The ground-state computation of hetero-structure quantum dots in arbitrary shape	**Alex Chang** (Department of Applied Mathematics, National Pingtung University, Taiwan), A Coupled Transport and Phase Equilibrium Flow On Heterogeneous Pore-Scale Network Media
16:10-16:30 C	EASIAM Business Meeting @R440	**Jilu Wang** (Department of Mathematics, City University of Hong Kong, Hong Kong), Modelling and analysis for heat and moisture transport in fibrous porous media with nonlocal radiation sources	**Hoang Linh Vu** (Faculty of Mathematics, Mechanics, and Informatics, VNU Hanoi University of Science, Vietnam), Efficient integration of matrix-valued non-stiff differential-algebraic equations by half-explicit methods	**Yusuke Morikura** (Graduate School of Fundamental Science and Engineering, Waseda University, Japan), Verification methods for linear systems using ufp estimation with rounding-to-nearest	**Sita Charkrit** (Department of Mathematics, Faculty of Sciences, Maejo University, Chiangmai, Thailand), An alternative method for solving nonlinear differential equations via integral equations.	**Rhodri Nelson** (Department of Mathematics, Hokkaido University, Japan), Applications Of Vortex Dynamics In Multiply Connected Domains
16:30-16:50 D		**Ekeoma Rowland Ijioma** (Meiji Institute of Advanced Mathematical Science, Japan), Pattern Formation in Reverse Smoldering Combustion: A Homogenization Approach	**Nary Kim** (Mathematics, Ajou University, Republic of Korea), Numerical Solutions of Stochastic Optimal Control problems using Stochastic Collocation method	**Katsuhisa Ozaki** (Department of Mathematical Sciences, Shibaura Institute of Technology, Japan), Fast Interval Matrix Multiplication without Directed Rounding	**David Gao** (School of Science, Information Technology and Engineering, University of Ballarat, Australia), Unified Understanding for Complex Systems and Solutions to Certain NP-Hard Problems	**Guanghua Ji** (School of Mathematical Sciences, Beijing Normal University, China), Kinetic Theory for Active Nematic Particle
16:50-17:10 E		**WeiFan Hu** (Department of Applied Mathematics, National Chiao-Tung University, Taiwan), A new unconditionally stable discretization of immersed boundary method and applications	**Naoya Yamanaka** (Research Institute for Science and Engineering, Waseda University, Japan), Accurate and Rigorous Logarithm Algorithm in Round to Nearest	**Hanz Martin Cheng** (Mathematics Department, Ateneo de Manila University, Philippines), Generation of Complex Matrices Belonging to Matrix Groups with Controlled Condition Number	**Timothy Gao** (Department of Applied and Engineering Physics, Cornell University, USA), Solutions to an 8th Order Polynomial Minimization Problem by Canonical Duality Theory	
17:10-17:30		Transportation to Banquet (Tour Bus): Assembly @17:20 at Astro-Math. 1F				
18:00-20:00		Banquet @Su Hang Restaurant/ Student Paper Prize Ceremony				

EASIAM 2012: DAY 2 (June 26, 2012)

Time						
		Invited Talks @Auditorium, Astro-Math.				
		Session Chair: Dongwoo Sheen				
9:30-10:10		**Victor Didenko** (Faculty of Science, University of Brunei Darussalam), Algebraic approach to approximation methods for operator equations				
10:10-10:30		Coffee				
		Session Chair: Hyung-Chun Lee				
10:30-11:10		**Wei-Cheng Wang** (Department of Mathematics, National Tsing Hua University, Taiwan), A kernel-free boundary integral method for the Stokes system				
11:10-11:50		**Leevan Ling** (Department of Mathematics, Hong Kong Baptist University, Hong Kong), Meshless strong form collocation: Theories & Applications				
12:00-13:20		Lunch				
		Parallel Session 6: Applied Partial Differential Equations	Parallel Session 7: Numerical Analysis	Parallel Session 8: Applied Numerical Linear Algebra	Parallel Session 9: Mathematical Biology and/or Medicine	Parallel Session 10: Fluid Mechanics
		@Room 101, Astro-Math.	@Room 102, Astro-Math.	@Room 202 Astro-Math.	@Room 204, Astro-Math.	@Room 201, Astro-Math.
		Session Chair: Shao Liang Zhang	Session Chair: Wai-Ki Ching	Session Chair: Hendra Gunawan	Session Chair: Mohd Omar	Session Chair: Xiaolin Li
13:20-13:40 A		**Hisashi Okamoto** (Research Institute for Mathematical Sciences, Kyoto University, Japan), A pattern formation in 2D Navier-Stokes equations at very high Reynolds numbers	**Xiao-Qing Jin** (Department of Mathematics, University of Macau, Macau), A sinc collocation method for Love's integral equation with a very small parameter	**Mao-Ting Chien** (Department of Mathematics, Soochow University, Taiwan), Determinantal representation of polynomials	**Rafael Saldana** (Mathematics Department, Ateneo de Manila University, Philippines), Mathematical Aspects of Foraging Behavior Among Long-Tailed Shrikes (Lanius schach) and Brown Shrikes (Lanius cristatus)	**Leo Hari Wiryanto** (Faculty of Mathematics and Natural Sciences, Bandung Institute of Technology, Indonesia), Local flow near a separation of solid boundary
13:40-14:00 B		**Luyu Sun** (Department of Mathematics, Hong Kong Baptist University, Hong Kong), Unconditionally Energy Stable Scheme for Binary Fluid-Surfactant Dynamics Model	**ChiehSen Huang** (Department of Applied Mathematics, National Sun Yat-sen University, Taiwan), A locally conservative Eulerian-Lagrangian finite volume WENO scheme for advection problems	**Hai-Wei Sun** (Department of Mathematics, University of Macau, Macau), Fast Algorithms for Toeplitz Matrix Exponential and Applications	**Hui Zhang** (School of Mathematical Sciences, Beijing Normal University, China), Self-consistent Mean Field Model of Hydrogel and Its Numerical Simulation	**Takahito Kashiwabara** (Graduate School of Mathematical Sciences, The University of Tokyo, Japan), On a strong solution of the Navier-Stokes equations under slip or leak boundary conditions of friction type
14:00-14:20 C		**Zhengru Zhang** (School of Mathematical Sciences, Beijing Normal University, China), Energy stable method for molecular beam epitaxial growth model without slope	**Hiroshi Fujiwara** (Graduate School of Informatics, Kyoto University, Japan), Numerical Analysis and Computations for the Radiative Transport Equation	**Yusaku Yamamoto** (Department of Computational Science, Kobe University, Japan), A generalization of the dqds algorithm for totally nonnegative matrices	**Sugiyarto Surono** (Ahmad Dahlan University Yogyakarta, Indonesia), Mathematical Model Six Classes Of Disease's Spreading (Epidemics) with Variable Human Population and Disease-Carrier and its Variations	**Ching-Hao Yu** (Department of Engineering Science and Ocean Engineering, National Taiwan University, Taiwan), Development of a scheme that preserves the dispersion relation equation for solving the pure advection equation and Navier-Stokes equations with free surface
14:20-14:40 D		**Xia Ji** (Institute of Computational Mathematics, Chinese Academy of Sciences, China), High-order Accurate Runge-Kutta Discontinuous Galerkin Methods for a Two-dimensional Nonlinear Dirac Model	**Xuefeng Liu** (Research Institute for Science and Engineering, Waseda University, Japan), On verified eigenvalue evaluation of self-ajoint elliptic differential operator	**Siu-Long Lei** (Department of Math, University of Macau, Macau), Circulant and skew-circulant splitting iteration method for solving constant coefficient fractional diffusion equations	**Hidenori Yasuda** (Department of mathematics, Josai University, Japan), Simulation of fulminant ARDS and lymphopenia of H5N1	
14:40-15:00 E	Conference Registration @Astro-Math. 1F		**Kuan-Yu Chen** (Department of Applied Mathematics, National Chiao-Tung University, Taiwan), A conservative scheme for solving coupled surface-bulk convection-diffusion equations with an application to interfacial flows with soluble surfactant	**Mei-Feng Liu** (Department of Applied Mathematics, I-Shou university, Taiwan), Mathematical modeling for the single-walled carbon nanotubes (SWCNTs) based on thermo-magneto-electro-elastic theory with nonlocal effect	**Maxim Solovchuk** (Taida Institute of Mathematical Science, National Taiwan University, Taiwan), A computational study of nonlinear Westervelt equation and its application to focused ultrasound therapy	
15:00-15:30		Coffee				
		Parallel Session 11: Applied Partial Differential Equations	Parallel Session 12: Numerical Analysis	Parallel Session 13: Applied Numerical Linear Algebra	Parallel Session 14: Specific Topics	Parallel Session 15: Operation Research and Optimization
		@Room 101, Astro-Math.	@Room 102, Astro-Math.	@Room 202 Astro-Math.	@Room 204, Astro-Math.	@Room 201, Astro-Math.
		Session Chair: Chieh-Sen Huang	Session Chair: Hai-Wei Sun	Session Chair: Xiao-Qing Jin	Session Chair: Leo Hari Wiryanto	Session Chair: Rafael Saldana
15:30-15:50 A		**Li-Ming Yeh** (Department of Applied Mathematics, National Chiao-Tung University), Uniform Estimate for Non-Uniform Elliptic Equations with Discontinuous Coefficients	**Seak-Weng Vong** (Department of Mathematics, University of Macau, Macau), Discrete-time collocation methods for solving Schrödinger equations with wave operator	**Yin-Tzer Shih** (Department of Applied Mathematics, National Chung Hsing University, Taiwan), Adaptive Parameterized Block-Based Singular Value Decomposition and for Image De-noising and Compression	**Hendra Gunawan** (Department of Mathematics, Bandung Institute of Technology, Indonesia), On the boundedness of fractional integral operators	**Wai-Ki Ching** (Department of Mathematics, The University of Hong Kong, Hong Kong), Interactive High-Order Hidden Markov Model and Its Applications
15:50-16:10 B		**Naoki Wada** (Graduate School of Informatics, Kyoto University, Japan), An approach to inverse problem on graphs through representation theory	**Tomoyuki Miyaji** (JSPS Research Fellow, Research Institute for Mathematical Sciences, Kyoto University, Japan), Taylor model for Poincare map and applications	**Roden David** (Mathematics, Ateneo de Manila University, Philippines), Transform Methods for Approximating Eigenvalues of Matrices	**Ferry Jaya Permana** (Department of Mathematics, Universitas Katolik Parahyangan, Indonesia), An Approximate Distribution for the Weighted Sum of the Variance Gamma Processes	**Mohd Omar** (Mathematics, University of Malaya, Malaysia), An integrated manufacturing system for linearly time-varying demand process
16:10-16:30 C		**Prisayarat Sangapate** (Maejo University, Thailand), Adaptive control and synchronization of the shallow water model	**Jia-Wei Lee** (Department of Harbor and River Engineering, National Taiwan Ocean University, Taiwan), A semi-analytical approach for a nonconfocal suspended strip in an elliptical waveguide	**Yu-Fen Cheng** (Department of Mathematics, National Central University, Taiwan), Parallel Two-level Polynomial Jacobi-Davidson Eigensolver for Large, Sparse Dissipative Acoustic Problems	**Dharma Lesmono** (Department of Mathematics, Universitas Katolik Parahyangan, Indonesia), Modelling Option on Indonesian Stock Indices Using Variance Gamma	**Roberd Saragih** (Industrial and Financial Mathematics Research Group, Institut Teknologi Bandung, Indonesia), Controller with minimum order for infinite dimensional system based on singular perturbation
16:30-16:50 D			**David Ni** (Research, Direxion Technology, Taiwan), Topological Transitions of Meromorphic Maps of Extended Lorentz Transformation	**Ching-Sung Liu** (Department of Mathematics, National Tsing Hua University, Taiwan), An inexact inverse iteration for computing the smallest eigenvalue of an irreducible M-matrix	**Ali Serdar Nazlipinar** (Dumlupinar University, Turkey), An Algorithm for Calculation of Attainable Sets of Nonlinear Control Systems with Limited Resources	**Michelle Vallejos** (Institute of Mathematics, University of the Philippines, Philippines), Multigrid optimization methods for boundary optimal control problems
16:50-17:10 E			**Norikazu Saito** (Graduate School of Mathematical Sciences, The University of Tokyo, Japan), Finite volume approximation for fast diffusion equations	**Dongjin Lee** (Graduate School of Engineering, Nagoya University, Japan), Eigenvalue Computation for a Specific Need Arising from Electronic Structure Calculation		
17:30-19:30		Reception @Astro-Math. 1F				

EASIAM 2012: DAY 3 (June 27, 2012)

Time						
		Keynote Talk @Auditorium, Astro-Math.				
		Session Chair: Ming-Chih Lai				
9:30-10:30		**Yalchin Efendiev** (Department of Mathematics, Texas A&M University, USA), Generalized Multiscale Finite Element Methods				
10:30-10:50		Coffee				
		Parallel Session 16: Applied Partial Differential Equations	Parallel Session 17: Numerical Analysis	Parallel Session 18: Auto-Tuning	Parallel Session 19: Specific Topics	Parallel Session 20: Operation Research and Optimization
		@Room 101, Astro-Math.	@Room 102, Astro-Math.	@Room 202 Astro-Math.	@Room 204, Astro-Math.	@Room 201, Astro-Math.
		Session Chair: Jyh-Hao Lee	Session Chair: Suh-Yuh Yang	Session Chair: Takahiro Katagiri	Session Chair: Yongwimon Lenbury	Session Chair: Roberd Saragih
10:50-11:10 A		**Ruo Li** (School of Mathematical Sciences, Peking University, China), Globally Hyperbolic Regularization of Grad's Moment System	**Takehiko Kinoshita** (Research Institute for Mathematical Sciences, Kyoto University, Japan), Some remarks on the optimal L^2 error estimates for the finite element method with nonconvex polygonal domain	**Takahiro Katagiri** (Information Technoloy Center, The University of Tokyo, Japan), ppOpen-AT: An Auto-tuning Language for ppOpen-HPC ---Its New function and Impact to Application Software ---	**Wikaria Gazali** (BINUS University, Indonesia), Program Design Classification Simulation Sandals Dhiif's Product with Back Propagation and Fourier Descriptors Method	**Xiaoming Yuan** (Department of Mathematics, Hong Kong Baptist University, Hong Kong), Customized Proximal Point Algorithms and Applications to Image Processing
11:10-11:30 B		**Ming-Chien Chiang** (Department of Applied Mathematics, National Chiao-Tung University, Taiwan), On the reconstruction of the reflection and refraction free-form surfaces arising from geometric optics design	**Akitoshi Takayasu** (Faculty of Science and Engineering, Waseda University, Japan), Computer-assisted existence proof of solutions to elliptic equations in divergence form	**Takao Sakurai** (Hitachi, Ltd.), OpenATLib: Automatic solver and preconditioner selection for sparse matrix libraries	**Oranit Panprasitwech** (Department of Mathematics, King Mongkut's University of Technology Thonburi, Thailand), A Combinatorial Interpretation for Generalized Continued Fractions	**Emrah Akyar** (Department of Mathematics, Anadolu University, Turkey), Brown-Robinson Method for Matrix Games with Fuzzy Payoffs
11:30-11:50 C	Conference Registration @Astro-Math. 1F	**Yu-Chen Shu** (Department of Mathematics, National Cheng Kung University, Taiwan), Coupling Interface Method for Solving Poisson-Boltzmann Equation	**Zhou Guanyu** (Graduate School of Mathematical Science, The University of Tokyo, Japan), Analysis of the fictitious domain method with penalty for parabolic problem	**Yaohung M. Tsai** (Department of Mathematics, National Taiwan University, Taiwan), Optimizing the Block Size for QR Factorization on CPU-GPU Hybrid Systems	**Yaowaluck Khongtham** (Department of Mathematics, Faculty of Science, Mae jo University, Thailand), Common Solutions of Variational Inclusions Problems, Equilibrium Problems and Fixed Point Problems in Hilbert Spaces	**Handan Akyar** (Department of Mathematics, Anadolu University, Turkey), A new geometric approach for ranking generalized trapezoidal fuzzy numbers
12:00-13:20		Lunch				
			Parallel Session 21 Numerical Analysis	Parallel Session 22 Auto-Tuning	Parallel Session 23: Specific Topics	
			@Room 102, Astro-Math.	@Room 202 Astro-Math.	@Room 204, Astro-Math.	
			Session Chair: Chin-Tien Wu	Session Chair: Weichung Wang	Session Chair: Juan-Ming Yuan	
13:20-13:40 A			**Chi-Tien Lin** (Deaprtment of Financial and Computational Mathematics, Providence University, Taiwan), Numerical study for long-time solutions for some hyperbolic conservation laws with nonlinear term	**Reiji Suda** (Department of Computer Science, the University of Tokyo, Japan), 4DAC and One-Step Approximation: Mathematical Formulation and Algorithm for Automatic Tuning	**Watcharapon Pimsert** (Department of Mathematics, Faculty of Science, Kasetsart University, Thailand), Pexiderized forms of a logarithmic functional equation	
13:40-14:00 B			**Yun-Shih Wang** (Department of Applied Mathematics, National Chung Hsing University, Taiwan), A two-parameter continuation algorithm for vortex pinning in rotating Bose-Einstein condensates	**Teruo Tanaka** (Department of Computer Science, Faculty of Infomatics, Kogakuin University, Japan), An Incremental Parameter Estimation Method Appling d-Spline for Software Automatic Tuning	**Anurak Thanyacharoen** (Department of Mathematics and Statistics, Faculty of Science and Technology, Thammasat University, Thailand), A general solution of a generalized additive-quartic functional equation	
14:00-14:20 C			**Cheng Liang Li** (School of Mathematical Sciences, Guilin University of Electronic Technology, China), The New Cascadic Multigrid Method for Elliptic Interface Problems	**Chenhan Yu** (Department of Mathematics, National Taiwan University, Taiwan), Modeling and Optimizing Performance of Symmetric Positive Definite Multifrontal on Hybrid CPU-GPU Systems	**Warisa Yomsatieankul** (Department of Mathematics, Faculty of Science, King Mongkut's University of Technology Thonburi, Thailand), Third-order Reconstruction Using Meshfree Interpolating Moving Least Squares Method	
14:20-14:30		Break + Transition to Closing				
14:30-15:00		Closing + Lottery (iPad x 2) @Auditorium, Astro-Math.				
		Host: I-Liang Chern				