Second Mathematics and Physical Sciences Graduate Congress (MPSGC)

General Schedule
Tuesday, 12 December (AM), LT31 (Blk S16 Level 3)

8.15 am – 8.50 am  Registration
8.50 am – 9.00 am  Guests to be seated

Opening Ceremony
9.00 am – 9.05 am  Opening Note
A/P Ji Wei, Vice Dean, Faculty of Science
National University of Singapore

Deans’ Speeches
9.05 am – 9.15 am  Prof Tan Eng Chye
Dean, Faculty of Science
National University of Singapore

9.15 am – 9.25 am  Prof Piamsak Menasveta
Dean, Faculty of Science
Chulalongkorn University

9.25 am – 9.35 am  Prof Rauzah Hashim
Deputy Dean, Faculty of Science
University of Malaya

Tea Break

Plenary Sessions
10.00 am – 10.45 am  Indian Tsunami 26 December, 2004
Prof Piamsak Menasveta
Department of Physical Science, Chulalongkorn University
(Chair: Prof Supawan Tantayanon)

10.45 am – 11.30 am  Development of S-Band EDFAS for Telecommunications
Prof Harith Ahmad
Department of Physics, University of Malaya
(Chair: Dr Zamri Zainal Abidin)

11.30 am – 12.15 pm  From Molecules to Materials of the Future
Prof Jagadese J. Vittal
Department of Chemistry, National University of Singapore
(Chair: Assoc Prof Ji Wei)

Lunch Break
Session 1 (PM)
Chair: Lim Fong Yin (NUS)
Chareewan Sirisrisumrit (Chulalongkorn)

2.00 pm – 2.40 pm Invited Speaker
Overview of PhD Programme in the Department of Mathematics
Shen Zuowei
National University of Singapore

2.40 pm – 3.05 pm Complementarity-based Demand Functions and Pricing Models for Multi-product Markets
Soon Wanmei
National University of Singapore

3.05 pm – 3.30 pm Wielandt Lengths and Subgroups of Various p-Groups And Their Relations with Other Group Invariants
Lee Poh Lin, Angeline
University of Malaya

3.30 pm – 4.00 pm Tea Break

Session 2 (PM)
Chair: Soon Wanmei (NUS)
Lee Poh Lin, Angeline (UM)

4.00 pm – 4.40 pm Invited Speaker
Rank-One Non-Increasing Additive Mappings between Matrix Spaces
Lim Ming Huat
University of Malaya

4.40 pm – 5.05 pm Heuristic Cut for Identifying the Solution of the Architectural Layout Design Optimization
Kamol Keatruangkamala
Chulalongkorn University

5.05 pm – 5.30 pm A 3D Numerical Method for Simulating Air Bubbles Rising in Viscous Liquids
Jan F. Stene
National University of Singapore

5.30 pm – 5.55 pm Association Rule Extraction Based on the Weak Support
Chareewan Sirisrisumrit
Chulalongkorn University
Session 1 (AM)
Chair: Jan F. Stene (NUS)
Kamol Keatruangkamala (Chulalongkorn)

9.00 am – 9.40 am  Invited Speaker
Properties of Harmonic Functions Star-like of Order
with Respect to Other Points
Suzeini Abdul Halim
University of Malaya

9.40 am – 10.05 am  Ramanujan’s Eisenstein Series and Powers of
Dedekind’s Eta Function
Toh Pee Choon
National University of Singapore

10.05 am – 10.30 am  Optimal Production And Repair Policies for a
Manufacturing System Under a Time Varying Demand
Process
Yeo, Ivan
University of Malaya

10.30 am – 11.00 am  Tea Break

Session 2 (AM)
Chair: Toh Pee Choon (NUS)
Ng Kok Haur (UM)

11.00 am – 11.40 am  Invited Speaker
Computational Methods for Molecule Orientations of
Liquid Crystals and Liquid Crystal Flows
Lin Ping
National University of Singapore

11.40 am – 12.05 pm  Ground States of Bose-Einstein Condensates:
Asymptotics and Numerical Computation
Lim Fong Yin
National University of Singapore

12.05 pm – 2.00 pm  Lunch Break
Second Mathematics and Physical Sciences
Graduate Congress (MPSGC)

Parallel Programme - Mathematics & Statistics
Wednesday, 13 December, CRA, S14-03-10

Session 1 (PM)
Chair: Khang Tsung Fei (NUS)
Mohd. Isfahani Ismail (UM)

2.00 pm – 2.40 pm  Invited Speaker
Challenges and Opportunities in Statistical Research for Graduate Students
Choi Kwok Pui
National University of Singapore

2.40 pm – 3.00 pm  Random Matrix Theory: A Short Introduction
Zhang Lixin
National University of Singapore

3.00 pm – 3.20 pm  Fitting the Straight Lines for Several Unreplicated Linear Functional Relationship Model
Jedzry Fadzlin Jalaluddin
University of Malaya

3.30 pm – 4.00 pm  Tea Break

Session 2 (PM)
Chair: Jedzry Fadzlin Jalaluddin (UM)
Hao Ying (NUS)

4.00 pm – 4.20 pm  A Class of Discrete Distributions Arising From Difference of Two Random Variables
Ng Choung Min
University of Malaya

4.20 pm – 4.40 pm  Detecting Wahlund’s Effect in Cases where Clear Population Subdivision Exists
Khang Tsung Fei
National University of Singapore
Second Mathematics and Physical Sciences Graduate Congress (MPSGC)

Parallel Programme - Mathematics & Statistics
Thursday, 14 December, CRA, S14-03-10

Session 1 (AM)
Chair: Zhao Yudong (NUS)
Ng Choung Min (UM)

9.00 am – 9.20 am  Simultaneous Shewhart-Cumulative Sum Charts Scheme
                    Rushan A B Abeygunawardana
                    National University of Singapore

9.20 am – 9.40 am  Computation of the Multivariate Normal Integral
                    Ng Kok Haur
                    University of Malaya

9.40 am – 10.00 am Bootstrap Confidence Interval of A New Herd Measure
                    Wong Yoke Chen
                    University of Malaya

10.00 am – 10.20 am Response-Adaptive Randomization in Clinical Trials
                    Li Juanjuan
                    National University of Singapore

10.20 am – 11.00 am Tea Break

Session 2 (AM)
Chair: Wong Yoke Chen (UM)
Zhang Lixin (NUS)

11.00 am – 11.20 am Non-null Semi-parametric Inference for the Mann-Whitney Measure
                    Zhao Yudong
                    National University of Singapore

11.20 am – 11.40 am A Procedure for Detecting Additive Outlier in $BL(1,0,1,1)$ Process
                    Mohd. Isfahani Ismail
                    University of Malaya

11.40 am – 12.00 pm A New Approach on Gene Selection for Tissue Classification
                    Hao Ying
                    National University of Singapore
P1  
*Slip Effects of Viscoelastic Simulation for Die Swell Problem*

**Piyamabhorn Uttamung**  
Chulalongkorn University

P2  
*Sedimentation Study at Putrajaya Wetland, Malaysia*

**Ahmad Farid Bin Abu Bakar**  
University of Malaya

P3  
*Modelling of Hydrological Interaction at Paya Indah Wetlands, Malaysia*

**Bahaa-eldin Elwali Abddei Rahim Elwali**  
University of Malaya

P4  
*A Family of S-Shape Functions for Analyzing Binary Responses*

**Fam Pei Shan**  
University of Malaya

P5  
*The Use of Digital Imaging in the Characterization of DLA-Type Fractals*

**Mohd. Najmuddin**  
University of Malaya

P6  
*Modelling and Analysis of Data Disclosure Risk by the Inverse Trinomial Distribution*

**Sim Shin Zhu**  
University of Malaya