

PREFACE

International Conference on Mathematics and Sciences or abbreviated ICOMSc is a conference which organized by Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia. ICOMSc was firstly held on 12-13 October 2011, at Majapahit Hotel, Surabaya. The conference aims to provide a forum for academics, researchers, and practitioners to exchange ideas and recent developments on mathematics and sciences. The conference was expected to foster networking, collaboration and joint effort among the conference participants to advance the theory and practice as well as to identify major trends in mathematics and sciences.

The conference was attended contributors from Indonesia, Malaysia, Thailand, Philippines, United Arab Emirates, Taiwan, Japan, Australia, Spain, and United States of America. Such a spread of participation from around the world confirms the appropriateness of the “International” label of this conference. There were 130 papers and posters presented in the conference, and there are 111 full papers are published in this proceeding.

Finally, the committee would like to thank all keynote speakers, presenters, participants, sponsors, and all those involved directly and indirectly in the first ICOMSc.

Surabaya, December 2011



Mardi Santoso
Conference Chair

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Sumaryono

Conference Program

Wednesday, 12 October 2011

08:00 to 09:00	Registration
09:00 to 09:30	Welcome and Opening Remarks
09:30 to 10:00	Coffee/Tea Break
10:00 to 12:00	Plenary Presentation 1 A/Prof. Gopalan Nair School of Mathematics and Statistics, The University of Western Australia, Australia
	Plenary Presentation 2 Prof. Hiroyuki Kitahata Department of Physics, Graduate School of Science, Chiba University, Japan
12:00 to 13:00	Lunch
13:00 to 15:00	Oral Presentation
15:00 to 15:30	Coffee/Tea Break
15:30 to 16:30	Oral Presentation
19:30 to 21:00	Welcome Dinner

Thursday, 13 October 2011

08:00 to 09:00	Plenary Presentation 3 Dr. Intan Muchtadi Department of Mathematics, Institut Teknologi Bandung, Indonesia
09:00 to 09:30	Coffee/Tea Break
09:30 to 11:30	Plenary Presentation 4 A/ Prof. Maria Elena de Bellard Department of Biology, The California State University Northridge, USA
	Plenary Presentation 5 Prof. Jyh-Chiang Jiang Theoretical & Computational Chemistry Lab, Chemical Engineering Department, National Taiwan University of Science and Technology, Taiwan
11:30 to 12:30	Lunch
12:30 to 14:45	Oral Presentation

Friday, 14 October 2011

Surabaya City Tour

Oral Presentation Schedule

Day 1	Brantas1	Brantas 2	Bromo	Adika 1	Adika 2	Adika 3	Adika 4
13:00-13:15	OM 01	OM 13	OM 25	OS 01	OS 13	OP 01	OP 13
13:15-13:30	OM 02	OM 14	OM 26	OS 02	OS 14	OP 02	OP 14
13:30-13:45	OM 03	OM 15	OM 27	OS 03	OS 15	OP 03	OP 15
13:45-14:00	OM 04	OM 16	OM 29	OS 04	OS 16	OP 04	OP 16
14:00-14:15	OM 05	OM 17	OM 30	OS 05	OS 17	OP 05	OP 17
14:15-14:30	OM 06	OM 18	OM 31	OS 06	OS 18	OP 06	OP 18
14:30-14:45	OM 07	OM 19	OM 32	OS 07	OS 19	OP 07	OP 19
14:45-15:00	OM 08	OM 20	OM 33	OS 08	OS 21	OP 08	OP 20
Coffee/Tea Break							
15:30-15:45	OM 09	OM 21	OM 34	OS 09	OS 22	OP 09	OP 21
15:45-16:00	OM 10	OM 22	OM 35	OS 10	OS 23	OP 10	OP 22
16:00-16:15	OM 11	OM 23	OM 36	OS 11	OS 24	OP 11	OP 23
16:15-16:30	OM 12	OM 24		OS 12		OP 12	OP 24

Oral Presentation Schedule

Day 2	Brantas1	Brantas 2	Bromo	Adika 1	Adika 2	Adika 3	Adika 4
12:30-12:45	OB 01	OB 06	OM 28	OS 20	OS 33	OS 41	OC 01
12:45-13:00	OB 02	OB 07	OM 37	OS 25	OS 34	OS 42	OC 02
13:00-13:15	OB 03	OB 08	OM 38	OS 26	OS 35	OS 43	OC 03
13:15-13:30	OB 04	OB 09	OM 39	OS 27	OS 36	OS 44	OC 04
13:30-13:45	OB 05	OB 10	OM 40	OS 28	OS 37	OS 45	OC 05
13:45-14:00			OM 41	OS 29	OS 38	OS 46	OC 06
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School of Mathematics and Statistics, The University of Western Australia, Australia
Analysis of Point Pattern on the Planar Linear Networks

Hiroyuki Kitahata

Department of Physics, Graduate School of Science, Chiba University
& PRESTO JST, Chiba 263-8522, Japan
Spontaneous Motion of a Droplet Coupled with Chemical Reaction

Intan Muchtadi-Alamsyah

Algebra Research Group, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Bandung
Algebraic Structures in Cryptography

Maria Elena de Bellard

Department of Biology, The California State University Northridge, USA
Evolution of Glia and Neural Crest Cells

Jyh-Chiang Jiang

Theoretical and Computational Chemistry Laboratory
Chemical Engineering Department, National Taiwan University of Science
and Technology, Taiwan
The Role of Computational Chemistry in Experiments from Elucidation to Prediction

PART I: STATISTICS AND BIOLOGY

STATISTICS

- OS 01 **Adi Wijaya, Suhartono**
Department of Statistics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Adaptive Neuro Fuzzy Inference System For Forecasting Rice Production
- OS 02 **Andhie Surya Mustari, Ismaini Zain**
Department of Statistics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Spatial Tobit Regression Analysis. Case Study of Internet Usage
in Java*
- OS 03 **Adityawati N. K., Heri Kuswanto, Suhartono**
Department of Statistics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Simulation of Time Series Model in Farmers Terms of Trade
(FTT) with Arima*
- OS 06 **Yuliana Susanti, Hasih Pratiwi**
Sebelas Maret University, Surakarta, Indonesia
*Robust Regression Model For Predicting The Availability of Soybean in
Indonesia Using M-Estimation*
- OS 07 **Alfian F. Hadi¹, I Made Sumertajaya¹, Rudi Iswanto²**
¹ Department of Statistics, Bogor Agricultural University, Bogor, Indonesia
² Indonesian Legumes and Tuber Crops Research Institute, Malang, Indonesia
*Zero-Inflated Poisson Row-Column Association Models in Agricultural Trial.
towards ZIP-AMMI Models*
- OS 08 **Angsoka Dewi, Sutikno, Heri Kuswanto**
Department of Statistics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Cluster Ensemble Method for Clustering Rural Areas in Riau Province
- OS 09 **Ari Rusmasari, Sutikno, Setiawan**
Department of Statistics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Residual Bootstrap Approach in Spatial Regression Model

- OS 10 **Brodjol Sutijo S. U., Agus Suharsono**
 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OS 11 **Dian Andriana**
 Research Center for Informatics, Indonesian Institute of Sciences (LIPI),
 Bandung, Indonesia
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- OS 12 **Margaretha Ohyver, Heruna Tanty**
 Department of Statistics, Faculty of Science and Technology,
 Universitas Bina Nusantara, Jakarta, Indonesia
*The Comparison of Drinking Water Filtration Using Friedman Test in Reduce
 Levels of Cadmium, Chromium, and Cyanide*
- OS 13 **Farid Ma'ruf, Bambang Widjanarko Otok**
 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Modelling The Underdeveloped Villages Gorontalo Province 2008 (with
 Multivariate Adaptive Regression Splines Approach)*
- OS 14 **Hasih Pratiwi¹, Subanar¹, Danardono¹, J. A. M. van der Weide²**
¹ Department of Mathematics, Gadjah Mada University, Yogyakarta, Indonesia
² Delft University of Technology, Delft, The Netherlands
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 Department of Statistics, Islamic University of Indonesia, Yogyakarta,
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OS 19 **Juwariyanto, Nur Iriawan**
 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Mathematics, Faculty of Mathematics and Natural Sciences,
 Padjadjaran University, Bandung, Indonesia
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¹ Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Ministry of Communication and Informatics, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Centre for Foundation Studies in Sciences, University of Malaya,
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
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 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Mathematics, Faculty of Mathematics and Natural Sciences,
 Universitas Negeri Sebelas Maret, Surakarta, Indonesia
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 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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¹Malaysian Institute of Information Technology (MIIT),
 Universiti Kuala Lumpur, Kuala Lumpur, Malaysia
²General Studies Section (Mathematics), MIIT,
 Universiti Kuala Lumpur, Kuala Lumpur, Malaysia
³Department of Forestry and Community Forestry, Phnom Penh, Cambodia
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 Department of Statistics, Faculty of Mathematics and Natural Science,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OS 44 **T. Siagian¹, H. Ritonga¹, Purhadi², Suhartono²**
¹ BPS Statistics Indonesia, Jakarta, Indonesia
² Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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 Department of Statistics, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OS 48 **Sony Sunaryo, Madu Ratna**
 Department of Statistics, Faculty of Mathematics and Natural Sciences, Institut
 Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- P 05 **Alfian F. Hadi**
 Department of Statistics, Bogor Agricultural University, Bogor, Indonesia
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BIOLOGY

- OB 01 **Alfonds Andrew Maramis¹, Aloysius Duran Corebima²**
¹ Department of Biology, Faculty of Mathematic and Natural Sciences,
 State University of Manado, Manado, Indonesia
² Biology Education Doctoral Program, Postgraduate Program, State
 University of Malang, Malang, Indonesia
Chlorophyllin Supplementation Able to Normalized The Ratio of SGOT/SGPT in Serum of Mice That Have Increased due to Repeated Exposure of Formalin-Contaminated Fish

- OB 02 **Bong Yii Bonn¹, Asma Ahmad Shariff², Abdul Majid Mohamed², Amir Feisal Merican³**
¹ Institute of Graduate Studies, University of Malaya, Kuala Lumpur, Malaysia
² Center for Foundation Studies in Science, University of Malaya, Kuala Lumpur, Malaysia
³ Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur, Malaysia
Body Mass Index of Malaysian School Children and Adolescents
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 Forest Management Program Studies, Faculty of Agriculture, 17th August 1945 University of Samarinda, Samarinda, Indonesia
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- OB 05 **Utami Sri Hastuti¹, Permata Ika Hidayati², Henny Nurul Khasanah¹**
¹ Biology Department, State University of Malang, Malang, Indonesia
² Educational Biology Program, Post Graduate Department, State University of Malang, Malang, Indonesia
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 Purwodadi Botanic Garden, Indonesian Institute of Sciences, Purwodadi, Indonesia
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- OB 07 **Tutik Nurhidayati¹, Nurul Jadid¹, Safita Merediana², Listy Anggraeni², Ni Ketut Dewi Indrayati²**
¹ Department of Biology, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Agricultural Department, Bangkalan, Indonesia
Indegeneus Vesicular Arbuscular Mycorrhizae (VAM) Isolated at Pangpong and Petong Village at Bangkalan Madura

- OB 08 **Utami Sri Hastuti¹, Sundari²**
¹ Biology Department, State University of Malang, Malang, Indonesia
² Biology Department, Khairun University, Ternate, Indonesia
Biodiversity of Soil Rhizosphere Mycoflora on Potato Farm at Tosari and Batu and Antagonis Ability Some Species of Antagonistic Mold Toward Fusarium Spp.
- OB 09 **I. Trisnawati D.T., M. Muryono**
Ecological Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Agrobiodiversity Study on Local Arthropods Community in Paddy Fields, Sampang, Madura, Indonesia. Preliminary Study on Biological Test Estimated Potential Impact of Sea Level Rise
- OB 10 **M. Muryono, I. Trisnawati D.T.**
Ecological Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Bio-Assessment The Use of Organic and Inorganic Fertilizer's on Paddy Field Using SRI (System of Rice Intensification) Method. The Effect on Growth and Yield of Rice Ciherang Cultivar
- P 04 **Fauziah, Solikin**
UPT Balai Konservasi Tumbuhan Kebun Raya Purwodadi – LIPI,
Jl. Raya Surabaya-Malang Km 65 Purwodadi, Pasuruan – Jawa Timur.
Scarcity and Diversity of Dioscorea spp. in Pasuruan, East Java
- P 07 **Agung Sri Darmayanti and Lia Hapsari**
Purwodadi Botanical Garden, Indonesian Institute of Sciences,
Jl. Raya Surabaya – Malang Km. 65, Pasuruan, East Java, Indonesia
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- P 08 **Solikin**
Purwodadi Botanical Garden, Indonesian Institute of Sciences,
Jl. Raya Surabaya- Malang km 65, Purwodadi, Pasuruan, Indonesia
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- P 09 **Mariana Rengkuan¹, Aloysius Duran Corebima²,
Sutiman Bambang Sumitro³, Mohamad Amin²**
¹Department of Biology, Manado State University, North Celebes,
Indonesia
² Department of Biology, Malang State University, East Java, Indonesia
³Department of Biology, Brawijaya University, East Java, Indonesia
*Sequence Variations Identification at Growth Hormone Gene of
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- P 10 **Tarzan Purnomo**
Department of Biology, Faculty of Mathematics and Natural Sciences,
State University of Surabaya, Surabaya, Indonesia
*Biodiversity of Plankton and Lead Content in Waters Contaminated
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- P 11 **Tarzan Purnomo¹, Yenny Risjani², Sukoso², and Marsoedi²**
¹Department of Biology, Faculty of Mathematics and Natural Sciences,
State University of Surabaya, Surabaya, Indonesia
² Faculty of Agriculture, Brawijaya University, Malang, Jl. Veteran,
Malang, Indonesia
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- P14 **Siti Nurfadilah, Janis Damaiyani, Ridesti Rindyastuti, Tarmudji, Pa'i**
Purwodadi Botanic Gardens, LIPI, Jl. Surabaya-Malang Km. 65,
Purwodadi, Pasuruan, East Java 67163, Indonesia
*The Acclimatization of Paraphalaenopsis labukensis Shim, A. Lamb &
C.L. Chan (Orchidaceae) on Different Types of Potting Media*
- P 15 **Nengah Dwianita Kuswytasari, Maya Shovitri,
Rendra Dwi Andriyadi**
Biology Departement, Faculty of Mathematic and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Soil Mold Diversity Along The Coastal Wonorejo, Surabaya

PART II: MATHEMATICS, CHEMISTRY, PHYSICS

MATHEMATICS

- OM 01 **Abraham P. Racca, Emmanuel A. Cabral**
Ateneo de Manila University, Loyola Heights, Quezon City, Philippines
Primitives of Henstock-Kurzweil Integrable Functions
- OM 04 **Tigor Nauli**
Research Center for Informatics, Indonesian Institute of Sciences (LIPI), Indonesia
Spliced Alignment Approach to Solve Exon Chaining Problem in Gene Prediction
- OM 09 **Alvida Mustika Rukmi**
Department of Mathematics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Uncertain Data Clustering by Geometry Computation
- OM 11 **Basuki Widodo, M. Siing, Febrian Eka Priyanga**
Department of Mathematics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Numerical Simulation of The Model Stream Flow and Sedimentation in The Main River in The Form of Sinusoidal Derived from Two Affluent Streams in The Form of Sinusoidal
- OM 13 **Rohan de Silva**
CQUniversity Sydney, Sydney, Australia
A Method to Calculate The Target Score in Rain Interrupted Limited over Cricket Matches
- OM 16 **Nova Hadi Lestriandoko, Ekasari Nugraheni**
Research Center for Informatics, Indonesian Institute of Sciences (LIPI), Bandung, Indonesia
A Block-Based Wavelet Watermarking Using The Contour of Blocks
- OM 17 **Erna Apriliani, Subchan, Santi Hartini**
Department of Mathematics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Implementation of Ensemble Kalman Filter (EnKF) Method to Estimate The Position of Mobile Robot
- OM 21 **Jesús Trello¹, Alfredo Serret²**
¹ Universidad Autónoma de Madrid, Spain
² Grupo EUROVAL, Madrid, Spain
Social Value of Investments. A Fuzzy Indicator

- OM 22 **Valeriana Lukitosari, Suparno, I Nyoman Pujawan, Basuki Widodo**
 Department of Mathematics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OM 23 **Jonald P. Fenecios, Emmanuel A. Cabral**
 Ateneo de Manila University, Loyola Heights, Quezon City, Philippines
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 Abu Dhabi University, Abu Dhabi, UAE
P-Compactly Packed and Coprimarily Packed Modules
- OM 28 **Isnaini Rosyida, Kintafani Tessa Olivia**
 Department of Mathematics, Faculty of Mathematics and Natural Sciences, Semarang State University, Semarang, Indonesia
Modeling a Traffic Regulation at Intersection Street Using Fuzzy Graph
- OM 30 **Pipark Chansuriya, Nongkhran Sasom, Sarawut Saenkarun**
 Department of Mathematics, Statistics and Computer Science, Faculty of Sciences, Ubon Ratchathani University, Warin Chamrap, Ubon Ratchathani 34190, Thailand
Finite Dimensional Simple Poisson Modules Over Certain Poisson Algebras
- OM 31 **Alongkot Suvarnamani**
 Department of Mathematics, Faculty of Science and Technology, Rajamangala University of Technology Thanyaburi (RMUTT), Thanyaburi, Pathum Thani, Thailand
Solutions of The Diophantine Equation $2^x + p^y = z^2$
- OM 32 **Subiono, Zumrotus Sya'diyah**
 Department of Mathematics, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Lyapunov-Max-Plus-Algebra Stability in Predator-Prey Systems Modeled by Timed Petri Net with The Entire Holding Times Are Considered
- OM 33 **Putu Wira Angriyasa¹, Zuherman Rustam¹, Jacub Pandelaki²**
¹ Department of Mathematics, Faculty of Mathematics and Natural Sciences, University of Indonesia, Jakarta, Indonesia
² Department of Radiology, Faculty of Medicine University of Indonesia, Jakarta, Indonesia
Brain Cancer (Astrocytoma) Classification Using Kernel Perceptron

- OM 34 **Sandra Yuwana, Devi Munandar**
 Research Center for Informatics, Indonesian Institute of Sciences (LIPI),
 Indonesia
*Interoperability Ontologies Using Prompt Algorithm for The Integrated
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- OM 35 **M. Tauviqirrahman^{1,2}, R.Ismail^{1,2}, J. Jamari², D.J. Schipper²**
¹ Laboratory for Surface Technology and Tribology,
 University of Twente, Enschede, The Netherlands
² Department of Mechanical Engineering, University of Diponegoro,
 Semarang, Indonesia
Numerical Method in The Performance Analysis of Journal Bearing
- OM 39 **M. Isa Irawan¹, Maya Shovitri², Alfi Yusrotis Zakkiyah¹,
 Siti Fauziyah¹**
¹ Department of Mathematics, Faculty of Mathematics and Natural
 Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Department of Biology, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Mathematics and Computation Approach for Biological Sequences
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- OM 42 **Nurul Hidayat, Basuki Widodo, Ahmad Fahmi Jatnika**
 Department of Mathematics, Faculty of Mathematics and Natural
 Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*An Application of Gabor Filter Bank Method on Developing A
 Fingerprint-Based Individual Identification System*
- P 01 **Suhud Wahyudi, Sumarno, Suharmadi Sanjaya**
 Department of Mathematics, Faculty of Mathematics and Natural
 Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Metric Dimension of Graph and Its Application on The Minimum
 Placement of Fire Sensorship in The Building (Case Study of
 Mathematics Department Building of ITS)*
- P 02 **M. Isa Irawan, Asri Bektipratiwi, Muis Kamaruddin, Oni Soesanto**
 Department of Mathematics, Faculty of Mathematics and Natural
 Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*The New Fast Learning Methods of Neural Networks for Pattern
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- P 03 **Sadjidon, Sunarsini**
 Department of Mathematics, Faculty of Mathematics and Natural
 Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Normed-2 on Sequence Space

CHEMISTRY

- OC 01 **Anita Alni¹, Loh Teck Peng²**
¹ Universitas Surabaya, Surabaya, Indonesia
² Nanyang Technological University, Singapore
InCl₃ Catalyzed Mukaiyama-Michael Reaction and Its Application towards Synthesis of Polirachitide A
- OC 02 **Saharman Gea**
Department of Chemistry, Faculty of Mathematics and Natural Sciences, University of Sumatera Utara, Medan, Indonesia
Feasibility Study into The Use of Bacterial Cellulose as Scaffold Tissue Engineering
- OC 05 **Arif Fadlan, Arifta Henda Kurniatullah, Didik Prasetyoko**
Chemistry Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Comparison of AlCl₃ and ZSM-5 Catalysts for Reaction of Isatin and Indole
- OC 06 **Fahimah Martak, Nourma Safarina, Wihda Illiya**
Chemistry Department, Faculty of Mathematics and Natural Sciences Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Synthesis of Complex Compounds of Metal Ion Mn(II) and Ligand 2-Phenylethylamine
- OC 08 **Ratnaningsih E. Sardjono, Iqbal Mustapha, Iis Rosliana**
Indonesia University of Education, Bandung, Indonesia
Microwave-Assisted Synthesis of A Novel Calix[4]Resorcinarene from 7-Hydroxycitronellal
- P 13 **Semuel Unwakoly, Rachel Turalely**
Chemistry Education Program, Faculty of Education and Teacher Training, Pattimura University Ambon, Maluku, Indonesia
Analysis of Variation Nucleotide Sequence Human Mitochondrial DNA (MTDNA) D-Loop Region on Human Mesoderm Layer

PHYSICS

- OP 01 **M. Arief Bustomi, Irma Islamiyah**
Physics Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OP 02 **Anita Wahyuni, M. Arief Bustomi, Gontjang Praiitno, Agus Rubiyanto**
 Physics Department, Faculty of Mathematics and Natural Sciences,
 Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OP 05 **Johannes V.D. Wirjawan¹, Dean Zollman², Sytil Murphy³**
¹ Department of Physics Education, Widya Mandala Surabaya Catholic
 University, Surabaya, Indonesia
² Department of Physics, Kansas State University, Manhattan KS, USA
³ Institute of Environmental and Physical Sciences, Shepherd University,
 Shepherdstown WV, USA
Frequency Response of Metals on Induction Balance Study
- OP 06 **Mula Sigiro, Timbangan Sembiring²**
¹ Department of Physics, University of HKBP Nommensen, Medan, Indonesia
² Department of Physics, University of Sumatera Utara, Medan, Indonesia
Study of Spectrum Energy of Quantum Dot in AlGaAs
- OP 07 **Dwi Yuli Retnowati, Nurul Fitriyah, Mohammad Ghufron,
 Malik Anjelh Baqiya, Darminto**
 Physics Department, Faculty of Mathematics and Natural Sciences, Institut
 Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Synthesis and Characterization of Multiferroic BiFeO₃ from Iron Sands,
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- OP 08 **D. D. Risanti¹, S. van der Zwaag²**
¹ Department of Engineering Physics, Institut Teknologi Sepuluh Nopember,
 Surabaya, Indonesia
² NOVAM Group, Faculty of Aerospace Engineering, Delft University of
 Technology, Kluyverweg 1, 2629 HS Delft, The Netherlands
*Application of Thermoelectric Power Measurement to Secondary Precipitation
 Process in AA6061 Alloys*
- OP 09 **Sungkono, B.J. Santosa**
 Physics Department, Faculty of Mathematics and Natural Sciences, Institut
 Teknologi Sepuluh Nopember, Surabaya, Indonesia
Determined Dispersion of Rayleigh Wave Using FGRT Method
- OP 10 **W. Utama¹, Sungkono¹, A. S. Bahri¹, D. D. Warnana¹, Triwulan²**
¹ Physics Department, Faculty of Mathematics and Natural Sciences, Institut
 Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Department of Civil Engineering, Institut Teknologi Sepuluh Nopember,
 Surabaya, Indonesia
*Fuzzy Clustering to Automatic Zonation of Urban Area on The Incomplete
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- OP 11 **Werdi Putra Daeng Beta¹, Akhmad Khusayiri²**
¹ Directorate of Radiation Facility Inspection and Radioactives, Nuclear Energy Regulatory Agency of Indonesia (BAPETEN), Jakarta, Indonesia
² Center for Technical Assessment of Nuclear Installation and Materials, Nuclear Energy Regulatory Agency of Indonesia (BAPETEN), Jakarta, Indonesia
Data Assimilation for Off-Site Nuclear Emergency Management
- OP 12 **Ismail**
Power Reactor Assessment Division, Center for Technical Assessment of Nuclear Installation and Materials, Nuclear Energy Regulatory Agency of Indonesia (BAPETEN), Jakarta, Indonesia
Computational Simulation of A Constant Velocity of Nuclear Reactor Fuel Burning Region Movement
- OP 13 **A.D. Rosyadi¹, Harmadi², G.Yudhoyono¹, A. Rubiyanto¹**
¹ Physics Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Andalas, Padang, Indonesia
Analysis Acoustooptic Speckle Imaging on The Paint Layer of Acrylic
- OP 14 **R. Wibowo, Y.A.Sahodo, A. D. Rosyadi, Arifin, Nashori, A. Rubiyanto**
Physics Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
Development of Fiber-Optic Concentration Sensor Probe of Salt (NaCl) with Exfoliating and Bending
- OP 15 **Y.A. Sahodo¹, R. Wibowo¹, A.D. Rosyadi¹, Nasori¹, Arifin¹, S. Rahardjo², A. Rubiyanto¹**
¹ Physics Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
² Board of Assessment and Application of Technology, Jakarta, Indonesian
Design of Ring Resonator to Be Used for Gyroscope Fiber Optics Sensing
- OP 16 **Bualkar Abdullah, Yono Hadi Pramono, Eddy Yahya**
Physics Department, Faculty of Mathematics and Natural Sciences, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
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- OP 17 **Arifin¹, A. M. Hatta², Melania S.M.¹ and A. Rubiyanto¹**
¹ Physics Department, Faculty of Mathematics and Natural Sciences,
Hassanudin University, Makassar, Indonesia
² Department of Engineering Physics, Institut Teknologi Sepuluh Nopember,
Surabaya, Indonesia
*Development Optical Fiber Sensor Multimode Interference Based to Support
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- OP 19 **Ratno Nuryadi, Lia Aprilia, Nuning Aisah**
Center for Material Technology, Agency for Assessment and Application of
Technology, Jakarta, Indonesia
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- OP 20 **Frida U. Ermawati, Istianah, Rina Lestari, Suasmoro, Suminar Pratapa**
Department of Physics, Faculty of Mathematics and Natural Sciences,
Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
*Structural and Microstructural Studies on $Zn_xMg_{1-x}TiO_3$ Solid Solutions
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- OP 22 **Md Santo¹, Arsali²**
¹ Mobee Knowledge Services, Jakarta, Indonesia
² Faculty of Mathematics and Sciences, University of Sriwijaya, Palembang,
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Department of Physics, University of Gadjah Mada, Nanomaterials Research
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- OP 25 **Yohanes Edi Gunanto¹, Budhy Kurniawan², Soehardjo Poertadji², Agus
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¹ Faculty of Education, Universitas Pelita Harapan, Karawaci, Tangerang
² Department of Physics, University of Indonesia, Depok
³ Center of Technology for Nuclear Industrial Materials, National Nuclear
Energy Agency (BATAN), Serpong, Tangerang
*Crystal Structure and Magnetoresistance in
 $La_{0.47}Ca_{0.53}Mn_{1-x}Cu_xO_3$ with $0 \leq x \leq 0.09$*

