



*Editor*  
Imre J. Rudas



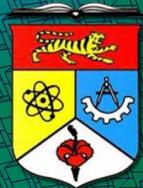
*Associate Editor*  
Carlos M. Travieso-Gonzalez

# Recent Advances in Mathematical and Computational Methods

*Proceedings of the 17<sup>th</sup> International Conference on  
Mathematical and Computational Methods in Science and Engineering  
(MACMESE '15)*

*Kuala Lumpur, Malaysia, April 23-25, 2015*

*Scientific Sponsors*



*University Kebangsaan  
Malaysia*



*Universiti Teknologi  
Malaysia*



*University of Naples  
Federico II, Italy*



# RECENT ADVANCES in MATHEMATICAL and COMPUTATIONAL METHODS

Proceedings of the 17th International Conference on Mathematical and  
Computational Methods in Science and Engineering (MACMESE '15)

Kuala Lumpur, Malaysia  
April 23-25, 2015

Scientific Sponsors



University Kebangsaan  
Malaysia



Universiti Teknologi  
Malaysia



University of Naples Federico II  
Italy

# **RECENT ADVANCES in MATHEMATICAL and COMPUTATIONAL METHODS**

**Proceedings of the 17th International Conference on Mathematical and  
Computational Methods in Science and Engineering (MACMESE '15)**

**Kuala Lumpur, Malaysia  
April 23-25, 2015**

Published by WSEAS Press  
[www.wseas.org](http://www.wseas.org)

**Copyright © 2015, by WSEAS Press**

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by no less than two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.

ISSN: 2227-4588  
ISBN: 978-1-61804-302-3

# **RECENT ADVANCES in MATHEMATICAL and COMPUTATIONAL METHODS**

**Proceedings of the 17th International Conference on Mathematical and  
Computational Methods in Science and Engineering (MACMESE '15)**

**Kuala Lumpur, Malaysia  
April 23-25, 2015**



**Editor:**

Prof. Imre J. Rudas, Obuda University, Hungary

**Associate Editor:**

Prof. Carlos M. Travieso-Gonzalez, University of Las Palmas de Gran Canaria, Spain

**Committee Members-Reviewers:**

Azami Zaharim

Melike Aydogan

Lotfi Zadeh

Leon Chua

Michio Sugeno

Dimitri Bertsekas

Demetri Terzopoulos

Georgios B. Giannakis

George Vachtsevanos

Abraham Bers

Brian Barsky

Aggelos Katsaggelos

Josef Sifakis

Hisashi Kobayashi

Kinshuk

Leonid Kazovsky

Narsingh Deo

Kamisetty Rao

Anastassios Venetsanopoulos

Steven Collicott

Nikolaos Paragios

Nikolaos G. Bourbakis

Stamatios Kartalopoulos

Irwin Sandberg

Michael Sebek

Hashem Akbari

Yuriy S. Shmaliy

Lei Xu

Paul E. Dimotakis

M. Pelikan

Patrick Wang

Wasfy B Mikhael

Sunil Das

Panos Pardalos

Nikolaos D. Katopodes

Bimal K. Bose

Janusz Kacprzyk

Sidney Burrus

Biswa N. Datta

Mihai Putinar

Wlodzislaw Duch

Tadeusz Kaczorek

Michael N. Katehakis

Pan Agathoklis

P. Demokritou

P. Razelos

Dr. Subhas C. Misra

Martin van den Toorn

Malcolm J. Crocker

S. Dafermos

Urszula Ledzewicz

Dimitri Kazakos

Ronald Yager

Athanassios Manikas

Keith L. Clark

Argyris Varonides

S. Furfari

Constantin Udriste

Patrice Brault

Jim Cunningham

Philippe Ben-Abdallah

Photios Anninos

Ichiro Hagiwara

Andris Buikis

Akshai Aggarwal

George Vachtsevanos

Ulrich Albrecht

Imre J. Rudas

Alexey L Sadovski

Amedeo Andreotti

Ryszard S. Choras

Remi Leandre

Moustapha Diaby

Brian McCartin

Elias C. Aifantis

Anastasios Lyrintzis

Charles Long

Marvin Goldstein

Costin Cepisca

Kleanthis Psarris

Ron Goldman

Ioannis A. Kakadiaris

Richard Tapia

F.-K. Benra

Milivoje M. Kostic

Helmut Jaberg

Ardeshir Anjomani

Heinz Ulbrich

Reinhard Leithner

Elbrous M. Jafarov

M. Ehsani

Sesh Commuri

Nicolas Galanis

S. H. Sohrab

Rui J. P. de Figueiredo

Hiroshi Sakaki

K. D. Klaes

Emira Maljevic

Kazuhiko Tsuda

Milan Stork

Lajos Barna

Nobuoki Mano

Nobuo Nakajima  
Victor-Emil Neagoe  
P. Vanderstraeten  
Annaliese Bischoff  
Virgil Tiponut  
Andrei Kolyshkin  
Fumiaki Imado  
Sotirios G. Ziavras  
Constantin Volosencu  
Marc A. Rosen  
Alexander Zemliak  
Thomas M. Gatton  
Leonardo Pagnotta  
Yan Wu  
Daniel N. Riahi  
Alexander Grebennikov  
Bennie F. L. Ward  
Guennadi A. Kouzaev  
Eugene Kindler  
Geoff Skinner  
Hamido Fujita  
Francesco Muzi  
Les M. Sztandera  
Claudio Rossi  
Sergey B. Leonov  
Arpad A. Fay  
Lili He  
M. Nasseh Tabrizi  
Alaa Eldin Fahmy  
Gh. Pascovici  
Pier Paolo Delsanto  
Radu Munteanu  
Ioan Dumitrache  
Corneliu Lazar  
Miquel Salgot  
Amaury A. Caballero  
Maria I. Garcia-Planas  
Petar Popivanov  
Alexander Gegov  
Lin Feng  
Colin Fyfe  
Zhaohui Luo  
Mikhail Itskov  
George G. Tsyarkin  
Wolfgang Wenzel  
Weilian Su  
Phillip G. Bradford  
Ray Hefferlin  
Gabriella Bognar  
Hamid Abachi  
Karlheinz Spindler  
Josef Boercsoek  
Eyad H. Abed  
Robert K. L. Gay  
Andrzej Ordys  
Harris Catrakis  
T Bott

Petr Filip  
T.-W. Lee  
Le Yi Wang  
John K. Galitos  
Oleksander Markovskyy  
Suresh P. Sethi  
Hartmut Hillmer  
Bram Van Putten  
Alexander Iomin  
Roberto San Jose  
Minvydas Ragulskis  
Arun Kulkarni  
Joydeep Mitra  
Vincenzo Niola  
S. Y. Chen  
Duc Nguyen  
Tuan Pham  
Jiri Klima  
Rossella Cancelliere  
L.Kohout  
Dr-Eng. Christian Bouquegneau  
Wladyslaw Mielczarski  
Ibrahim Hassan  
Stavros J.Baloyannis  
James F. Frenzel  
Vilem Srovnal  
J. M. Giron-Sierra  
Walter Dosch  
Rudolf Freund  
Erich Schmidt  
Alessandro Genco  
Martin Lopez Morales  
Ralph W. Oberste-Vorth  
Vladimir Damgov  
P.Borne

**Preface**

This year the 17th International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE '15) was held in Kuala Lumpur, Malaysia, April 23-25, 2015. The conference provided a platform to discuss mathematical methods and computational techniques or applications of known mathematical methods and computational techniques etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conferences are published in this Book that will be sent to international indexes. They will be also available in the E-Library of the WSEAS. Extended versions of the best papers will be promoted to many Journals for further evaluation.

Conferences such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors



## Table of Contents

<b>Plenary Lecture 1: Signaling Problem of Wave Evolution</b>	12
<i>Edi Cahyono</i>	
<b>Plenary Lecture 2: Several Equivalent Relations about Variational Inequality Problems</b>	13
<i>Zili Wu</i>	
<b>Plenary Lecture 3: Big Data Algebra: A Rigorous Approach to Big Data Analytics and Engineering</b>	14
<i>Yingxu Wang</i>	
<b>Mathematical Models and Algorithms for Chemical Reaction Balancing in MATLAB</b>	15
<i>Yingxu Wang</i>	
<b>Inverse problems for Simulation of Exogenous Type Microbial Depolymerization Process</b>	22
<i>Masaji Watanabe, Fusako Kawai</i>	
<b>An Efficient Numerical Technique for Solving of Certain Classes of Functional Differential Equations</b>	32
<i>Zdeněk Šmarda, Josef Rebenda, Yasir Khan</i>	
<b>Particle Dispersion and Deposition in Laminar Flows Around Two Circular Cylinders</b>	39
<i>Dongjoo Kim, Dongjun Hwang, Seok-Min Jeong</i>	
<b>Procedures for Outlier Detection in Circular Functional Relationship Model</b>	43
<i>Mohd Syazwan Mohamad Anuar, Abdul Ghapor Hussin</i>	
<b>Quantifying Engagement of Video Games: Pac-Man and DotA (Defense of the Ancients)</b>	49
<i>Norizan Mat Diah, Arie Pratama Sutiono, Long Zuo, Nathan Nossal, Hiroyuki Iida, Nor Azan Mat Zin</i>	
<b>On the Epimorphism Word</b>	56
<i>Maria Contessa</i>	
<b>On Splines of the Fifth Order</b>	60
<i>Irina Burova, Tatjana Evdokimova</i>	
<b>A Compact and Systematic Design of Microstrip and Suspended Stripline Structure (SSS) Bandpass Filter with Defected Structure for Wideband Applications</b>	66
<i>Z. Zakaria, M. A. Mutalib, A. B. Jjim</i>	
<b>Construction of Higher-Order Continuous Platform for Error Correction Methods</b>	76
<i>Sunyoung Bu, Philsu Kim</i>	
<b>Investigation of Heart Rate Variability Response Towards Electroacupuncture Stimulation: A Pilot Study in Healthy Volunteers</b>	80
<i>Malarvili Balakrishnan, Megalla Packri, Desiree Wi Yee, Kim Yun Jin, Yuan Wen Hau</i>	

<b>Gabor Edge Detection Method Based on Bilateral Filter and Otsu Threshold for Noisy Ultrasound Image</b>	88
<i>Suhaila Sari, Sri Erna Ervinna Binti Asahrori, Hazli Roslan, Nabilah Ibrahim</i>	
<b>Direction of Arrival Estimation Using Self-Organizing Map</b>	96
<i>Xiuhui Tan, Hongping Hu, Rong Cheng, Yanping Bai</i>	
<b>Extension the Consistent Mass Matrices of Beam Elements for Vibration Problems of Rectangular Plates on Winkler Foundation</b>	101
<i>Abdulhalim Karasin, Mehmet Emin Öncü, Meral Suer</i>	
<b>Enneper in Tensioned Fabric Structures Engineering Development</b>	107
<i>Hooi Min Yee, Mohd Nasir Abdul Hadi</i>	
<b>Conditional Stability of Weakly Delayed Planar Linear Discrete Systems</b>	111
<i>Josef Diblík, Hana Halfarová, Jan Šafařík</i>	
<b>The Effects of Turbulent Nanofluids and Secondary Flow on the Heat Transfer Through a Straight Channel</b>	118
<i>Abdolbaqi Mohammed Khdher, Rizalman Mamat</i>	
<b>A Three Parameter Weibull of Flexural Strength Variation of Porous Sintered Clay</b>	125
<i>Muazu Abubakar, Mohd Nasir Tamin, Norhayati Ahmad</i>	
<b>The Effect of Initial Stresses and Piezoelectric Constants on the Propagation Bulk Acoustic Waves in an Hexagonal Smart Material</b>	133
<i>Abo-El-Nour N. Abd-Alla, F. Alshaikh, A. M. Hamdan</i>	
<b>Student Enrollment Allocation into Academic Programs Using Preemptive Goal Programming</b>	139
<i>Nasruddin Hassan</i>	
<b>Optimization of Multi-Vendor Integrated Procurement-Production Model Using Genetic Algorithm</b>	144
<i>Mohd Nizam Ab Rahman, Raden Achmad Chairdino Leuveano, Fairul Azni Bin Jafar, Chairul Saleh, Baba Md Deros</i>	
<b>Modelling Multivariate Spatial Data Using the Partial Sums of the Least Squares Residuals</b>	154
<i>Wayan Somayasa, Yulius Bara Pasolon</i>	
<b>Application of Artificial Neural Networks in Fracture Characterization and Modeling Technology</b>	162
<i>Mostafa Alizadeh, Radzuan Junin, Rahmat Mohsin, Zohreh Movahed, Mehdi Alizadeh, Mohsen Alizadeh</i>	
<b>The Numerical Solution of Systems of Singular Integral Equations by Reduction Methods in Generalized Holder Spaces</b>	170
<i>Feras Al Faqih, Iurie Caraus, Nikos E. Mastorakis</i>	
<b>Control Theoretic Model of Regulatory Effect of Ribosomal Frameshifting on Polyamine Metabolism</b>	180
<i>Md Mijanur Rahman, R. Badlishah Ahmad</i>	

<b>A Habitual Domain Approach to Coalition Formation in n-Person Games: The Model</b>	187
<i>Moussa Larbani, Po. Lung. Yu</i>	
<b>Improvement of Resistance Against Pathogens, Growth, and Yield of Soybean on Marginal Land Using Indigenous Rhizobacteria Formulations</b>	194
<i>Andi Khaeruni, Teguh Wijayanto, Gusti Ayu Kade Sutariati, Asniah, Sulqify</i>	
<b>Power Inverse Gaussian Distribution</b>	201
<i>Abdullah Y. Al-Hossain</i>	
<b>Fiscal Policy Scenarios in Enhancing Local Government Revenue and Reducing Unemployment and Poverty</b>	203
<i>Azhar Bafadal, Asrul Sani, M. Arief Dirgantoro, Surni, Usman Rianse</i>	
<b>Spill-Over and Uncertainty Considerations in the Active Vibration Suppression of Elastic Cantilevered Beam</b>	214
<i>Harijono Djojodihardjo, Mohammad Jafari</i>	
<b>Simulation of Rolling Moment Induced by Various Aircraft Trailing Vortices Vortex Models: Review and Analysis</b>	224
<i>Harijono Djojodihardjo</i>	
<b>Exact Solution of the Spherical Stefan Problem with Two Free Boundaries</b>	234
<i>Stanislav Kharin, Merey Sarsengeldin, Samat Kassabek</i>	
<b>Mathematical Analysis of Feedback Reaction Involved in a Blood Coagulation Process With Flow and Inhibition</b>	242
<i>Asrul Sani, Mukhsar, Edi Cahyono</i>	
<b>Early Detection and Classification of Paddy Diseases with Neural Networks and Fuzzy Logic</b>	248
<i>Mohd Adzhar Abdul Kahar, Sofianita Mutalib, Shuzlina Abdul-Rahman</i>	
<b>Towards Applying Deep Neural Network for Complex Input Patterns</b>	258
<i>Mohd Razif Shamsuddin, Shuzlina Abdul-Rahman, Azlinah Mohamed</i>	
<b>Ab-Initio Modeling of Disordered Nanoplasmonics</b>	268
<i>J. S. T. Gongora, Enzo Di Fabrizio, Andrea Fratolocchi</i>	
<b>Buoyancy Driven Convection in Micropolar Fluid with Controller and Variable Boundaries</b>	272
<i>N. F. M. Mokhtar, I. K. Khalid, N. M. Arifin</i>	
<b>Efficient Class Matrix Congruential Generator</b>	279
<i>Gwei-Hung Tsai, Der-Jin Chen, Chiou-Hua Lin, Li-Dain Niou</i>	
<b>Design and Implementation of Adaptive Noise Canceler Based on RLS Algorithm</b>	286
<i>Xiangguang Zhang, Yongsheng Xu</i>	
<b>Authors Index</b>	290

## Plenary Lecture 1

### Signaling Problem of Wave Evolution



**Professor Edi Cahyono**  
Department of Mathematics  
University of Halu Oleo  
Indonesia  
E-mail: [edi\\_cahyono@innov-center.org](mailto:edi_cahyono@innov-center.org)

**Abstract:** We consider surface wave evolution. At an initial point the wave profile is given as a prescribed signal. For practical needs in hydrodynamics laboratories, the waves are usually measured downstream at several points. In the case of traveling waves, the signals downstream are merely translated temporally from the ones at the initial points. In general, this does not occur. Waves may provide much different signal profiles at different points. We focus on waves governed by a KdV type equation. We present the changes of the wave profiles at several points. The waves which are the solutions of KdV type equation are computed analytically by applying perturbation method. The solution is in a series expansion of two parameters, i. e. amplitude and frequency difference. We show that these parameters are responsible for the profile change of the solution at several points. The profile change is mainly due to the so-called side band interactions.

**Brief Biography of the Speaker:** He was awarded a Doctor in Applied Analysis and Mathematical Physics University of Twente, the Netherlands in 2002. Upon completion of his PhD degree, he was appointed as a Lecturer in the Department of Mathematics, Universitas Halu Oleo, Kendari Indonesia. In 2010 he was promoted to Professor of Industrial and Applied Mathematics. His main research areas are focused on Partial Differential Equations and applications. For the case of diffusion equation, he has applied it for modeling of wood drying in an industry. Currently, he has been working on the relation of fundamental solution type with temporal probability density function of stock, currency and index dynamics.

## Plenary Lecture 2

### Several Equivalent Relations about Variational Inequality Problems



**Professor Zili Wu**

Department of Mathematical Sciences  
Xi'an Jiaotong-Liverpool University  
CHINA

E-mail: [ziliwu@email.com](mailto:ziliwu@email.com)

**Abstract:** We consider equivalent relations between the Gateaux differentiabilitys of two gap functions of variational inequality problems. Some equivalent conditions for their locally Lipschitz property are also presented. Equivalent condition for the relevant mapping to be pseudomonotone+ on relevant solutions sets are obtained. Based on the above results, we characterize the weak sharpness of the solutions of variational inequality problems in terms of error bounds of two gap functions. Furthermore we show that some algorithms for solving variational inequality problems possess finite convergence property.

## Plenary Lecture 3

### Big Data Algebra: A Rigorous Approach to Big Data Analytics and Engineering



#### Professor Yingxu Wang

President, International Institute of Cognitive Informatics and Cognitive Computing (ICIC)  
Director, Laboratory for Cognitive Informatics, Denotational Mathematics, and Software Science  
Dept. of Electrical and Computer Engineering  
Schulich School of Engineering and Hotchkiss Brain Institute  
University of Calgary  
Canada  
E-mail: [yingxu@ucalgary.ca](mailto:yingxu@ucalgary.ca)

**Abstract:** Data are an abstract representation of the quantity of real-world entities and mental objects. Big data are extremely large-scaled heterogeneous data in terms of quantity, complexity, semantics, distribution, and processing costs in computer science, information science, cognitive informatics, web-based computing, cloud computing, and computational intelligence. Big data science studies the properties, theories, mathematical means, and methodologies of big data. Big data engineering is systematical analytic technologies for efficiently dealing with the inherent complexity and exponentially increasing demands in big data representation, acquisition, storage, organization, manipulation, searching, retrieval, distribution, standardization, consistency, and security.

This keynote lecture presents a big data algebra as a novel denotational mathematics for formal big data analytics in big data science and engineering. The cognitive foundations of data, information, knowledge, and intelligence are explored. A mathematical model of big data is formally introduced. Based on it, a set of algebraic operators on formal big data models, such as the formal big data analysis, inference, mining, induction, and fusion operators, is rigorously elaborated. This leads to the algebra for big data modeling, analyses, mining, information elicitation, knowledge representation, and intelligence inference. A wide range of applications of big data algebra are identified in the contemporary fields of big data science/engineering, cognitive informatics, knowledge mining, neurocomputing, human memory mechanisms, cognitive computing, machine learning, semantic computing, cognitive linguistics, cognitive systems, computational intelligence, artificial intelligence, cloud computing, and intelligent systems.

**Brief Biography of the Speaker:** Yingxu Wang is professor of cognitive computing, brain science, and denotational mathematics, President of International Institute of Cognitive Informatics and Cognitive Computing (ICIC, <http://www.ucalgary.ca/icic/>) at the University of Calgary. He is a Fellow of ICIC, a Fellow of WIF (UK), a P.Eng of Canada, and a Senior Member of IEEE and ACM. He received a PhD in computer science from the Nottingham Trent University, UK. He was visiting professors (on sabbatical leave) at Oxford University (1995), Stanford University (2008), UC Berkeley (2008), and MIT (2012), respectively. He is the founder and steering committee chair of the annual IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI\*CC) since 2002. He is founding Editor-in-Chief of Int. Journal of Cognitive Informatics & Natural Intelligence (IJCINI), founding Editor-in-Chief of Int. Journal of Software Science & Computational Intelligence (IJSSCI), Associate Editor of IEEE Trans. on SMC (Systems), and Editor-in-Chief of Journal of Advanced Mathematics & Applications (JAMA). Dr. Wang is the initiator of a few cutting-edge research fields such as cognitive informatics, denotational mathematics (concept algebra, process algebra, system algebra, semantic algebra, and inference algebra), abstract intelligence ( $\alpha$ ), cognitive computing, cognitive learning engines, cognitive knowledge base theory, and basic studies in software science, neuroinformatics, fuzzy mathematics, cognitive linguistics, and computational intelligence. He has published 400+ peer reviewed papers and 28 books in cognitive informatics, denotational mathematics, cognitive computing, software science, and computational intelligence. He is the recipient of dozens international awards on academic leadership, outstanding contributions, best papers, and teaching in the last three decades.

## Authors Index

Abd-Alla, A.-N. N.	133	Hassan, N.	139	Nossal, N.	49
Abdul-Rahman, S.	248, 258	Hau, Y. W.	80	Öncü, M. E.	101
Abubakar, M.	125	Hu, H.	96	Packri, M.	80
Ahmad, N.	125	Hussin, A. G.	43	Pasolon, Y. B.	154
Ahmad, R. B.	180	Hwang, D.	39	Rahman, M. M.	180
Al Faqih, F.	170	Ibrahim, N.	88	Rahman, M. N. A.	144
Al-Hossain, A. Y.	201	Iida, H.	49	Rebenda, J.	32
Alizadeh, Me.	162	Jafar, F. A. B.	144	Rianse, U.	203
Alizadeh, Moh.	162	Jafari, M.	214	Roslan, H.	88
Alizadeh, Mos.	162	Jeong, S.-M.	39	Šafařík, J.	111
Alshaikh, F.	133	Jiim, A. B.	66	Saleh, C.	144
Anuar, M. S. M.	43	Jin, K. Y.	80	Sani, A.	203, 242
Arifin, N. M.	272	Junin, R.	162	Sari, S.	88
Asahrori, S. E. E. B.	88	Kahar, M. A. A.	248	Sarsengeldin, M.	234
Asniah	194	Karasin, A.	101	Shamsuddin, M. R.	258
Bafadal, A.	203	Kassabek, S.	234	Šmarda, Z.	32
Bai, Y.	96	Kawai, F.	22	Somayasa, W.	154
Balakrishnan, M.	80	Khaeruni, A.	194	Suer, M.	101
Bu, S.	76	Khalid, I. K.	272	Sulqifly	194
Burova, I.	60	Khan, Y.	32	Surni	203
Cahyono, E.	242	Kharin, S.	234	Sutariati, G. A. K.	194
Caraus, I.	170	Khdher, A. M.	118	Sutiono, A. P.	49
Chen, D. J.	279	Kim, D.	39	Tamin, M. N.	125
Cheng, R.	96	Kim, P.	76	Tan, X.	96
Contessa, M.	56	Larbani, M.	187	Tsai, G.-H.	279
Deros, B. M.	144	Leuveano, R. A. C.	144	Wang, Y.	15
Di Fabrizio, E.	268	Lin, C. H.	279	Watanabe, M.	22
Diah, N. M.	49	Mamat, R.	118	Wijayanto, T.	194
Diblík, J.	111	Mastorakis, N. E.	170	Xu, Y.	286
Dirgantoro, M. A.	203	Mohamed, A.	258	Yee, D. W.	80
Djojodihardjo, H.	214, 224	Mohsin, R.	162	Yee, H. M.	107
Evdokimova, T.	60	Mokhtar, N. F. M.	272	Yu, P. L.	187
Fratilocchi, A.	268	Movahed, Z.	162	Zakaria, Z.	66
Gongora, J. S. T.	268	Mukhsar	242	Zhang, X.	286
Hadi, M. N. A.	107	Mutalib, M. A.	66	Zin, N. A. M.	49
Halfarová, H.	111	Mutalib, S.	248	Zuo, L.	49
Hamdan, A. M.	133	Niou, L.-D.	279		