PARALLEL SESSIONS

	DAY 1 | 3 DECEMBER 2024				
TIME	**JADEITE 1**	**JADEITE 2** Parallel session 1A **Statistics** *Chairperson:* *Dr. Syaiba Balqish Ariffin* *@ Mat Zin*	**PERIDOT 3** Parallel session 1B **Artificial Intelligence** *Chairperson:* *Dr. Rosmanjawati* *Abdul Rahman*	**PERIDOT 4** Parallel session 1C **Data Science** *Chairperson:* *Assoc. Prof. Dr. Gobithaasan* *Rudrusamy*	**CITRINE**
14:00 – 14:20	**INVITED TALK ON TECHNOLOGY UPDATES** Inspiring STEM Education with Texas Instruments' Innovative Solutions **Ts. Puteri Anis Aneeza Zakaria**	**MATHTECH 2024-0208** Refined Strategies for Robust Outlier Detection in Binary Logistic Regression **Syaiba Balqish Ariffin @ Mat Zin**	**MATHTECH 2024-0105** Assessment of Deep Learning Models for Predicting COVID-19 Severe and Critical Cases Post Pandemic **Shawn Aswin Co**	**MATHTECH 2024-0119** The Efficacy of Weight Control in Persistence Vectors Detecting Geometrical and Topological Features from Point Cloud **Gobithaasan Rudrusamy**	**WORKSHOP 1** Numerical Tools for Systems of Delay Differential Equations **Professor Dr. Juancho A. Collera**
14:20 – 14:40		**MATHTECH 2024-0106** A Multinomial Logit Analysis of Environmental Determinants Affecting Road Crash Severity in Selangor, Malaysia **Muhammad Fadhirul Anuar Mohd Azami**	**MATHTECH 2024-0115** Prediction of Power Output from Wave Energy Converters Based on Gradient Boosting Model: A Case Study in Sydney, Australia **Gao Han**	**MATHTECH 2024-0081** Similarity-Based Network in the Industrial Community of Joyo City **Keita Takeuchi**	
14:40 – 15:00		**MATHTECH 2024-0108** Optimal Winsorization and Imputation of Outliers in Fitting Polynomial Regression of Weekly Dengue Surveillance Data **Joseph Ludwin D.C. Marigmen**	**MATHTECH 2024-0131** Efficient Modelling of Mangrove Forest Dynamics Using Convolutional Neural Networks **Alireza Daneshkhah**	**MATHTECH 2024-0040** Spillover Effects Analysis Between Volatility and Liquidity of WTI Using VAR **Zhuqin Liang**	
15:00 – 15:20		**MATHTECH 2024-0153** Zero-Inflated Negative Binomial Regression and Its Application **Ermawati**	**MATHTECH 2024-0102** Point Cloud Processing and Classification Using Graph Neural Networks **Shin Ying Lim**	**MATHTECH 2024-0135** Utilizing Financial Reports and Machine Learning for Predicting Financial Distress in Indonesian Industrial Companies **Ferry Vincenttius Ferdinand**	
15:20 – 15:40		**MATHTECH 2024-0178** Unveiling Parking Patterns: A Comparative Study of Model Fitting Methods for Arrival, Departure, and Duration in Diverse Environmental Settings **Zhi Xuen Lim**	**MATHTECH 2024-0147** G-Type Random Weighted k-Satisfiability of $k \leq 3$ Logical Representation with Election in Discrete Hopfield Neural Network **Amierah Abdul Malik**	**MATHTECH 2024-0136** Comparison of ANN and MDA Methods for Predicting Financial Distress in Indonesian Industrial Sector Companies **Ferry Vincenttius Ferdinand**	
15:40 – 16:00		**MATHTECH 2024-0093** Fitting Probability Distributions to COVID-19 Cases of Baguio City, Philippines Using Maximum Likelihood Estimation with Optimal Trimming and Outlier Elimination **Criselda P. Libatique**	**MATHTECH 2024-0034** A Comparative Study on the Least Square Method and Artificial Neural Network for Linear and Quadratic Curve Fitting **Siti Sarah Raseli**	**MATHTECH 2024-0118** Deep Learning Approaches for Efficient Uncertainty Quantification in High-Dimensional PDE-Based Models **Alireza Daneshkhah**	

DAY 2 | 4 DECEMBER 2024 (Malaysia Time)					
TIME	**JADEITE 1** Parallel session 2A **Pure Mathematics** *Chairperson:* *Dr. Noor A'lawiah Abd Aziz*	**JADEITE 2** Parallel session 2B **Applied Mathematics** *Chairperson:* *Dr. Norazrizal Aswad Abdul Rahman*	**PERIDOT 3** Parallel session 2C **Operations Research** *Chairperson:* *Dr. Majid Khan Majahar Ali*	**PERIDOT 4** Parallel session 2D **Virtual Presentation** *Chairperson:* *Dr. Siti Amirah Abd Rahman*	**CITRINE**
8:30 – 8:50	**INVITED 1** Relationship Between Degree-Based Topological Indices with Domination Parameters in Graphs **Professor Dr. Roslan Hasni @ Abdullah**	**MATHTECH 2024-0061** Multidimensional Integrated Projection Similarity Measure for Neutrosophic Fuzzy Set **Norazrizal Aswad Abdul Rahman**	**MATHTECH 2024-0060** Duality Theorem for Max-Plus Algebraic Determinants **Yuki Nishida**	**MATHTECH 2024-0008** The Impact of Calculator and Non-calculator Math Papers on Pre-university Students' Performance **Kamariah Aliman**	**WORKSHOP 2** Don't Make Ugly Graphs, Make Beautiful Graphs with GRID in R! **Prof. Dr. Alex R. Cook**
8:50 – 9:10		**MATHTECH 2024-0070** Transformation from Bi-CG into Bi-CR Using a Residual Smoothing-like Scheme **Kensuke Aihara**	**MATHTECH 2024-0129** Locating Parcel Locker Facilities in Pulau Pinang Island Using K-Means Clustering with Modified Further-Point First Heuristics **Nazmi Syazwan Shahruddin**	**MATHTECH 2024-0025** E-Module Development with a STEAM Approach to Building Materials for Curved Side Spaces **M. Fikri Hamdani**	
9:10 – 9:30	**MATHTECH 2024-0046** Exploring Divisor Function Graphs: Generalized Properties and Topological Indices **Jerwin G. De Leon**	**MATHTECH 2024-0042** An Algorithm to Construct a Tridiagonal Matrix Factored by Bidiagonal Matrices with Prescribed Eigenvalues and Specified Entries **Koichi Kondo**	**MATHTECH 2024-0130** Foundation Model for Handling Traffic Congestion on a Highway with Autonomous Vehicles Using a Priority-Tree-Based Coordination Method and Dragonfly Algorithm **Chua Jing Ting**	**MATHTECH 2024-0075** On the Diophantine Equation $2^a px^4 + y^4 = z^4$ **Richard J. Taclay**	
9:30 – 9:50	**MATHTECH 2024-0039** Twin Chromatic Indices of Some Circulant Graphs **Jayson D. Tolentino**	**MATHTECH 2024-0151** Inverse Eigenvalue Problem for Periodic Jacobi Matrix **Kanae Akaiwa**	**MATHTECH 2024-0160** Load Integration in Local Search Operators for Intra-Route Pickup Green Vehicle Routing Problem **Muhammad Syarif Ghazali**	**MATHTECH 2024-0086** Solving the Indefinite Least Squares Problem Using Permuted Hyperbolic Rotations **Annie Lyn O. Yusiong**	
9:50 – 10:10	**MATHTECH 2024-0066** Set Chromatic Number of the Comb Product of Complete Graphs with Trees **Mark Anthony C. Tolentino**	**MATHTECH 2024-0080** Multi-State Cellular Automata with Conserved Quantities of Polynomial Form **Akiko Fukuda**	**MATHTECH 2024-0199** Scenario Analysis of Land Use Assignment with Neighbourhood Constraints **Destiny S. Lutero**	**MATHTECH 2024-0214** On the Existence of Continuous Solutions to Singular Elliptic Problems Involving Several Sublinear Terms **Toe Toe Shwe**	
10:10 – 10:30	**MATHTECH 2024-0107** Identification Number of Antiprism Graphs **Mark Anthony C. Tolentino**	**MATHTECH 2024-0069** Direct Three-Point Multistep Block Method for Solving Second-Order Boundary Value Problems **Najihah Mohd Noor**	**MATHTECH 2024-0140** Evaluating Indonesia's Government Pension Security Through the Survivor-Mortality Bond Scenario **Helena Margaretha**	**MATHTECH 2024-0122** Generalized Mittag-Leffler Kernels of Three Parameters for Solving Heat Equation **Abdallah Alshbeel**	

DAY 2 | 4 DECEMBER 2024 (Malaysia Time)					
TIME	**JADEITE 1** Parallel session 3A **Pure Mathematics** *Chairperson:* *Dr. Nabilah Najmuddin*	**JADEITE 2** Parallel session 3B **Applied Mathematics** *Chairperson:* *Dr. Ummu Atiqah* *Mohd Roslan*	**PERIDOT 3** Parallel session 3C **Statistics** *Chairperson:* *Dr. Zainudin Arsad*	**PERIDOT 4** Parallel session 3D **Virtual Presentation** *Chairperson:* *Dr. Ong Wen Eng*	**CITRINE**
10:50 – 11:10	**MATHTECH 2024-0038** On Twin Chromatic Mean Indices of Generalized Stars and Double Stars **Eleazar B. Bernales**	**MATHTECH 2024-0097** Mathematical Modelling of Sea Turtle Ecology: Prey-Predator Interactions with Stage-Structured Dynamics in Prey Populations **Ummu Atiqah Mohd Roslan**	**MATHTECH 2024-0198** Investigating the Role of Institutional Quality and Importance of Renewable Energy on Carbon Emission in Asian and European Countries **Zainudin Arsad**	**MATHTECH 2024-0011** Bridging Deterministic and Stochastic Models: Insights for Epidemic Control Strategies **Fahad Awadh Al-Abri**	
11:10 – 11:30	**MATHTECH 2024-0052** A Modified Cayley Transform: Motivation, Some Properties and Applications **Roden Jason A. David**	**MATHTECH 2024-0099** Topological Graph Representation of Haze Episodes Using the Mapper Algorithm with Multiple Distance Metrics **Vine Nwabuisi Madukpe**	**MATHTECH 2024-0100** An ARIMA-GARCH Approach on the Econometric Forecasting of Sugar Retail Price and Sugarcane Production in the Philippines **Danah Mae P. del Mundo**	**MATHTECH 2024-0030** Mathematical Modelling of Competitive Dynamics Between Species with Allee Effect **Mohammad Ibrahim Alrajoodi**	
11:30 – 11:50	**MATHTECH 2024-0054** Proving One-Dimensional Convergence of Trinomial Random Walks Conditioned on End Points via Stein's Method **Wasamon Jantai**	**MATHTECH 2024-0065** The Roles of the Apex Facultative Scavenger Harvesting Activity on the Stability of the Fishery System with Prey Carrion Biomass Resources **Wan Natasha Wan Hussin**	**MATHTECH 2024-0165** TBATS Forecasting Model: A Time Series Analysis of Dengue Incidence and Average Monthly Rainfall in Baguio City **Ryanne Andrei Concepcion**	**MATHTECH 2024-0145** The Dynamics of SARS-CoV-2 mRNA Vaccine, Innate and Adaptive Immunity Within a Human Host Using a Fractional Model **Emmanuel A. Nwaibeh**	**WORKSHOP 3** Mastering PhotoMath for Educators **Ts. Dr. Mageswaran Sanmugam**
11:50 – 12:10	**MATHTECH 2024-0109** On Polynomial Analogue of the Jeśmanowicz Conjecture **Justin L. Vizcara**	**MATHTECH 2024-0200** Water Level Analysis Using Mapper Algorithm for Flood Detection **Syed Mohamad Sadiq Syed Musa**	**MATHTECH 2024-0195** The Impact of Economic Growth, Energy Consumption, Rule of Law and Corruption on Carbon Emission in Asian Countries **Zainudin Arsad**	**MATHTECH 2024-0032** Bifurcation Analysis of a Modified SIR-Based COVID-19 Model with Nonlinear Incidence and Recovery Rates **Abubakar Shehu Sidi**	
12:10 – 12:30	**MATHTECH 2024-0087** On the Spectral Theory of a Generalization of the Random Period Doubling Substitution **Jim Ralphealo Mijares**	**MATHTECH 2024-0193** Modelling the Dynamics of Ducks for the Control of Golden Apple Snail (*Pomacea canaliculata*) in Rice Paddies **Noemi Ann S. De Guzman**	**MATHTECH 2024-0124** Evidence of Global Warming in Asia and Australasia **Zainudin Arsad**	**MATHTECH 2024-0007** Collective Dynamics in Spiking Neural Networks: A Systematic Review **Afifurrahman**	
12:30 – 12:50	**MATHTECH 2024-0074** Study of Darcy-Bénard Convection of Alloy Nanoliquid/Nanoliquid Saturated Porous Medium Using Heatlines Approach **Lakshmi K. M.**	**MATHTECH 2024-0182** Simulation of Coupled Spring-Mass System Using Physics-Informed Neural Network with Chebyshev Functional Expansion **Danang A Pratama**	**MATHTECH 2024-0103** Examining the Characteristics of Tobacco Consumers Among University Students in Malaysia **Md Zobaer Hasan**	**MATHTECH 2024-0064** Integer Hourglass Matrix **Dlal Bashir**	

DAY 2 | 4 DECEMBER 2024 (Malaysia Time)					
TIME	**JADEITE 1** Parallel session 4A **Applied Mathematics & Complex System Modelling** *Chairperson:* *Dr. Amirah Azmi*	**JADEITE 2** Parallel session 4B **Pure Mathematics** *Chairperson:* *Dr. Johnny Lim Khai Yang*	**PERIDOT 3** Parallel session 4C **Statistics** *Chairperson:* *Assoc. Prof. Dr. Mohd. Tahir Ismail*	**PERIDOT 4** Parallel session 4D **Virtual Presentation** *Chairperson:* *Dr. Siti Amirah Abd Rahman*	**CITRINE**
14:00 – 14:20	**INVITED 2** Time-Delay Systems and Applications **Professor Dr. Juancho A. Collera**	**MATHTECH 2024-0126** On the Strong Chromatic Index of the Middle Graph of Graphs **Trixie C. Almayda**	**MATHTECH 2024-0079** Election Fraud Detection Using Statistical Methods: The Case of the Philippine National Elections 2022 **Jeric Briones**	**MATHTECH 2024-0092** Analysis of Spatio-Temporal Distribution of Acute Gastroenteritis Incidence in Pangasinan, Ilocos Region **Daniel Bezalel A. Garcia**	
14:20 – 14:40		**MATHTECH 2024-0134** Exploring Weak Chain $\mathcal{U}$-Complexes in Simplicial Complexes and Persistent $\mathcal{U}$-Homology for Topological Data Analysis **Intan Muchtadi-Alamsyah**	**MATHTECH 2024-0085** Chess Performance and Critical Thinking Disposition of Varsity Chess Players in Selected Universities in Central Luzon **Jeff Barry V. Villora**	**MATHTECH 2024-0158** Comparison of Gold Price Predictions Using Random Forest and Support Vector Regression Methods **Lina Cahyadi**	
14:40 – 15:00	**MATHTECH 2024-0095** Numerical Simulations of a Reversed Bounded Confidence Model with Strong Opinions **Ronmar B. Macarubbo**	**MATHTECH 2024-0144** The Characterizations of Rank One and Rank Two Self-Loop Graphs **Xin Yi Li**	**MATHTECH 2024-0191** DESA Optimization: Enhancing Gaussian Models for Dengue Outbreaks **Rizavel C. Addawe**	**MATHTECH 2024-0018** Investigating the Impact of African Data Points Sequencing Interval on Renewable Energy Consumption and Production, CO_2 Emission, and Economic Growth **Alhaji Abdullahi Gwani**	**WORKSHOP 4** Introduction to Python Programming: From Setup to GUI with Applications in Mathematics and AI **Ts. Dr. Wan Nor Munirah Ariffin & Dr. Logenthiran Machap**
15:00 – 15:20	**MATHTECH 2024-0077** Hopf Bifurcation in a Delay-Coupled Neuron System with Leakage Delay **Ronnel John A. Garcia**	**MATHTECH 2024-0152** Perfect 2-Colorings of 6-Regular Toroidal Graphs **Florence Baclig & Jeanelle Ibañez**	**MATHTECH 2024-0120** Crisis Management Plans in Malaysian Higher Education Institutions During COVID-19 Pandemic: Perspectives of Academic Staff **Kian Wah Liew**	**MATHTECH 2024-0013** Sustainable Resource Management in the Palm Oil Industry: A Mathematical Insight with LSTM Autoencoder Applications **Nur Rusyidah Azri**	
15:20 – 15:40	**MATHTECH 2024-0188** Stability in a Fractional-Order Language Competition Model **Daryl Allen B. Saddi**	**MATHTECH 2024-0184** A Public-Key Cryptosystem Based on High Symmetry Complexity Graphs **Xiao Shi Jiao**	**MATHTECH 2024-0137** Prediction of COVID-19 Daily Cases in Penang Island: An Application of Stochastic Method **Fauhatuz Zahroh Shaik Abdullah**	**MATHTECH 2024-0024** A New Family of Binary Approximating Subdivision Schemes and Its Applications **Alvina Shakir**	
15:40 – 16:00	**MATHTECH 2024-0073** Effects of Skin Thermoregulation Delay in a Dynamical Model of Heat Transfer in an Infant Incubator **Kenneth Ivan B. Ramos & Alfred Devon D. Tolentino**	**MATHTECH 2024-0204** Invariants of Quasi-Alternating Knots **Nafaa Chbili**	**MATHTECH 2024-0174** Cumulative Sum (CUSUM) and Exponentially Weighted Moving Average (EWMA) Control Charts Approaches in Monitoring Crime Rate in Malaysia **Teng Mei Tuan**	**MATHTECH 2024-0157** Modelling Parcel Locker Queueing System Using Discrete Event Simulation **Ooi Jing Yin**	
16:00 – 16:20	**MATHTECH 2024-0094** Dynamics of Tumour-Immune System Interaction Model with Time Delays Using Gompertz Equation **Deegie Garcia-Elopre**	**MATHTECH 2024-0209** Bounds and Exact Values of the Weakly Connected k-Rainbow Domination Number in Special Graph Classes **Jamil J. Hamja**	**MATHTECH 2024-0138** Performance of t Control Chart in the Presence of Estimation Errors for Short Production Runs over a Range of Mean Shifts **Ng Peh Sang**	**MATHTECH 2024-0196** Statistical Patterns of Solutions to a Stochastic Compartmental Model of HIV/AIDS Transmission **Andhee Jacobe**	
16:20 – 16:40	**MATHTECH 2024-0141** Evaluating the Effectiveness of ENSO Index-Based Insurance Contracts in Japanese Agriculture **Helena Margaretha**	**MATHTECH 2024-0076** Rayleigh-Bénard Convection in Cylindrical Enclosures: State-of-the-Art **Pradeep G. Siddheshwar**	**MATHTECH 2024-0117** Consistency of Familial DNA Search Results in Southeast Asian Populations **Monchai Kooakachai**	**MATHTECH 2024-0197** The Application of FFT Denoising for ANN, ARIMA and ANN-ARIMA Predictions **Christian Aiphie G. Bitanga**	

DAY 3 | 5 DECEMBER 2024					
TIME	**JADEITE 1** Parallel session 5A **Applied Mathematics** *Chairperson:* *Dr. Adila Aida Azahar*	**JADEITE 2** Parallel session 5B **STEM Education** *Chairperson:* *Assoc. Prof. Dr. Ang Miin Huey*	**PERIDOT 3** Parallel session 5C **Interdisciplinary Mathematics** *Chairperson:* *Dr. Muhammad Fadhil Marsani*	**PERIDOT 4** Parallel session 5D **Applied Mathematics** *Chairperson:* *Assoc. Prof. Dr. Lok Yian Yian*	**CITRINE**
8:30 – 8:50	**INVITED 3** Exploring the Impact of Migration and Spatial Heterogeneity on the Dynamics of a Tick-Borne Disease **Assoc. Prof. Dr. Faraimunashe Chirove**	**MATHTECH 2024-0068** Improving Students' Engagement in Learning Mathematics via Automated Assessment System **Chee Wing Loon**	**MATHTECH 2024-0057** Consensus Convergence of Multi-Agent Systems Controlled via Geometric Quadratic Stochastic Operators **Siti Nurlaili Karim**	**MATHTECH 2024-0185** Bioconvection Flow in a Suspension of Gyrotactic Microorganisms and Nanoparticles Towards a Stagnation Point with Slip Conditions **Lok Yian Yian**	**WORKSHOP 5** Image Classification, Identification and Near Miss Detection Using You Only Look Once (YOLO) From CCTV Data **Dr. Majid Khan Majahar Ali** **&** **Assoc. Prof. Dr Ahmad Sufril Azlan Mohamed**
8:50 – 9:10		**MATHTECH 2024-0133** Mathematical Error Patterns and Problem-Solving Strategies Among Junior High Students with Mathematical Learning Difficulties in Palawan: A Mixed-Methods Approach **Prince Jobetroh N. Cabaya Cuz**	**MATHTECH 2024-0044** Visualizing Arithmetic Algorithm – Building Bridge Between Mathematics and Art by Programming **Maho Suzuki**	**MATHTECH 2024-0078** Flow and Heat Transmission Analysis of Rayleigh-Bénard Convection Driven by Newtonian Fluid with Colloidal Suspension **Sindhu S.**	
9:10 – 9:30	**MATHTECH 2024-0029** Bifurcation Analysis of an SVIR Epidemic Model with Partial Immunity **Amer M. Mohammed**	**MATHTECH 2024-0139** Spatial Reasoning as Predictor of Pre-service Elementary Teachers' Achievement in Geometry **Marielle Reyes**	**MATHTECH 2024-0180** A Liang-Kleeman Causality Analysis Based on Linear Inverse Modelling **Justin Lien**	**MATHTECH 2024-0056** Mixed Convection of Double-Diffusive Tri-Hybrid Nanofluid over Vertical Surface Under Convective Boundary Conditions **Kohilavani Naganthran**	
9:30 – 9:50	**MATHTECH 2024-0146** Stability Analysis on the Spread of Polio with Vaccination and Maternal Antibody **Hikmawati Pathuddin**	**MATHTECH 2024-0143** Mediating Effect of Mathematical Self-Efficacy on the Relationship Between Metacognitive Skills and Mathematical Creativity **Mark Lester Quiambao**	**MATHTECH 2024-0166** Circulant Graph Attention Networks for Transformer-Based Translation Machine **Euis Asriani**	**MATHTECH 2024-0049** Analysis of Magnetohydrodynamic Mixed Convection Flow over a Vertical Stretching Sheet with the Influence of Heat Generation/Absorption **Abubakar Sadiq Ndagara**	
9:50 – 10:10	**MATHTECH 2024-0110** Mathematical Analysis of the Transmission Dynamics of Japanese Encephalitis **Aprimelle Kris J. Pajimola**	**MATHTECH 2024-0164** Computational Thinking Skills as a Predictor of Mathematical Problem-Solving Performance Among Preservice Elementary Teachers **Rasel John C. Buenavista**	**MATHTECH 2024-0059** Quasigroup-Based DNA Cryptography **Tiong Yih Lian**		
10:10 – 10:30	**MATHTECH 2024-0091** Asymptotic Behaviour of Solutions to a Vector-Borne Disease Model with Continuous Time-Varying Transmission Rates **Timothy Robin Y. Teng**	**MATHTECH 2024-0177** Interplay Between Teachers' Perceived Usefulness and Extent of Integrating Technology in Teaching Mathematics with Their Openness to Innovation **Eulrich S. Almonte**	**MATHTECH 2024-0203** A Study on Weight Initialization Strategies for Training ANN-SVD Models in Medical Data Classification **Nur Fadhilah Ibrahim**		

DAY 3 | 5 DECEMBER 2024			
TIME	**PERIDOT 3** Parallel session 6A **Financial Mathematics** *Chairperson:* *Assoc. Prof. Dr. Sek Siok Kun*	**PERIDOT 4** Parallel session 6B **Applied Mathematics** *Chairperson:* *Dr. Yazariah Mohd Yatim*	**CITRINE** Parallel session 6C **Applied Mathematics** *Chairperson:* *Assoc. Prof. Dr. Gobithaasan Rudrusamy*
10:50 – 11:10	**MATHTECH 2024-0132** Cryptocurrency Taxation: An Analysis on the Cryptocurrency Model with Imposed Tax **Israel Portugal**	**MATHTECH 2024-0010** Projected Scenarios of Dengue Outbreak Based on CMIP6 SSP Scenarios **Xinyi Lu**	**MATHTECH 2024-0048** Extension of the Spiral of Theodorus **Kenjiro T. Miura**
11:10 – 11:30	**MATHTECH 2024-0150** British Put Option Pricing Under Mixed Fractional Brownian Motion Environment **Michele Marie F. Mahinay**	**MATHTECH 2024-0170** Forecasting Climate-Driven Dengue Incidence in Penang, Malaysia **Xinyi Lu**	**MATHTECH 2024-0210** Stability Analysis of B-Spline Alternating Group Explicit Method **Nur Aliah Izzati Rosman**
11:30 – 11:50	**MATHTECH 2024-0192** Regression Analysis on the Modifications of Fama and French Five-Factor Model Applied to Philippine Common Stocks from 2013-2020 **Florence Carl A. Tilano**	**MATHTECH 2024-0067** Immunity Derived from Vaccination and Past Infection: A Model for the COVID-19 Transmission Dynamics **Elvira P. de Lara-Tuprio**	**MATHTECH 2024-0155** Discretization and Associated Asymptotic Behaviour for the Lax Equation with Skew-Symmetry **Masato Shinjo**
11:50 – 12:10		**MATHTECH 2024-0035** A Mathematical Analysis of a COVID-19 SVEIQR Compartmental Model with Time-Varying Disease Transmission Rate **Lu Christian S. Ong**	**MATHTECH 2024-0036** Solution Generating Modified Two Theorems for Schwarzschild Static Einstein-Gauss-Bonnet Metrics **Petarpa Boonserm**
12:10 – 12:30		**MATHTECH 2024-0031** The Belousov-Zhabotinsky Chemical Reaction: A Review of Mathematical Modelling Techniques and Some Extended Analysis **Nor Hizamiyani Abdul Azziz**	**MATHTECH 2024-0189** Comparison of Gradient-Free Optimization Algorithms in Fitting the Log-Periodic Power Law **Michael Andrew G. Lontoc**