

Schedule of SYMOMATH 2026

Main Schedule of SYMOMATH 2026

Monday, 7 September 2026.

Time	Activity
07.00 - 07.30	Registration
07.30 - 08.30	Opening Ceremony
08.30 - 09.00	Coffee break
09.01 - 09.40	Keynote talk 1: Prof Sanjewa Perera Title: From Geometry to Clinic: Topological Signatures of Retinal Vascular Collapse Moderator: Prof. Dr. Dipo Aldilla, S.Si., M.Si.
09.40 - 10.20	Keynote talk 2: Prof. Folashade B. Augusto Title: Burning Landscape, Shifting Risk: Differential Effects of Prescribed Fire on Tick-Borne Tularemia Moderator: Prof. Dr. Dipo Aldilla, S.Si., M.Si.
10.20 - 11.00	Keynote talk 3: Prof Nuning Nuraini Title: Reading the Climate, Predicting the Outbreak: A Deterministic-Bayesian Early Warning System for Dengue in West Java Moderator: Isran K. Hasan, M.Si
11.00 - 11.40	Keynote talk 4: Prof Edy Soewono Title: A Fragile Balance of Stable Coexistence within Tarsier Population Moderator: Dr. Hasan Panigoro, M.Si
11.40 - 12.30	Lunch Break
12.30 - 13.10	Keynote talk 5: Dr. Bimandra Djaafara Title: Serocatalytic models for infectious disease control in Indonesia: turning mixed data sources into actionable understanding Moderator: Dr. Hasan Panigoro, M.Si
13.10 - 13.50	Keynote talk 6: Prof. Mehmet Yavuz Title: Modeling Biological Complexity Through Data, Dynamics, and Fractional Calculus Moderator: Dr. Hasan Panigoro, M.Si
13.50 - 15.20	Invited talk
15.00 - 15.30	Coffee break
15.30 - 17.15	Parallel Session
17.15 - 17.45	Closing
17.45	End of 1st day activity.
Tuesday, 8 September 2026	
Time	Activity
06.00 - 07.00	Go to Hius PAUS Sherly Meeting point in Lobi DAMHIL
07.00 - 12.00	Activity in Hiu Paus Sherly
12.00 - 13.00	Lunch Break

Parallel Schedule of SYMOMATH 2026

Monday, 7 September 2026

Room 201

Parallel Session 1 Onsite (13.50 - 15.20 WITA)

Moderator: Dr. Emli Rahmi, M.Si

Time	ID	Title	Authors
13.50 - 14.20	Invited Speaker 01	Mathematical Analysis of Models of the Spread of Tuberculosis (TB) and Multi-Drug-Resistant Tuberculosis (MDR-TB) Incorporating Various Treatments	Prof. Dr. Abadi
14.20 - 14.50	Invited Speaker 02	Threshold Dynamics of a Stochastic Hepatitis B Epidemic Model with Saturated Incidence Rate and Logarithmic Ornstein-Uhlenbeck Process	Prof. Dr. Agus Suryanto

Parallel Session 2 Onsite (15.30 - 17.00 WITA)

Moderator: Dr. Lazarus Kalvein Beay

15.30 - 16.00	Invited Speaker 03	The Red Flower Assassin Bug (<i>Rhynocoris segmentarius</i>) as a potential Natural Enemy For Fall Armyworm (<i>Spodoptera frugiperda</i>) : A Mathematical Modeling using Atangana-Baleanu-Caputo Derivative	Dr. Hasan Panigoro, MSi
16.00 - 16.30	Invited Speaker 04	Credit Risk Spread: A Mathematical Model	Dr. Windarto
16.30 - 16.45	79102	Numerical Simulation of the Effects of Branch Diameter on Hemodynamics in a Stenosed Retinal Artery Bifurcation	Zhana Nur Asmi Qamara
16.45 - 17.00	79105	Dynamics of Co-consumption Alcohol Model Considering Compartments of Rituals and Traditional Alcoholic Beverages	Dr. Lazarus Kalvein Beay
17.00 - 17.15	79112	A Two-Dimensional Spatiotemporal Mathematical Model of Cancer-Immune Cell Interaction Incorporating Immune Cell Chemotactic Movement	Fitriana Yuli Saptaningtyas
16.30 - 16.45	79113	A Two-Patch SEIR Model with Capacity-Regulated Mobility for Respiratory Disease Transmission	Putri Agriani Dumbela, M.Si
16.45 - 17.00	79107	The Dynamics of Behavior and Bifurcation in a Three-Species Mangrove Competition-Allelopathy Model	Dr. Dian Savitri

Parallel Schedule of SYMOMATH 2026

Monday, 7 September 2026

Room 202

Parallel Session 1 Onsite (14.00 - 15.00 WITA)

Moderator: Isran K. hasan, M.Si

Time	ID	Title	Authors
14.00 - 14.15	79110	Biostatistical Modeling of Morphometric and Phenotypic Diversity in Local Rice (<i>Oryza sativa</i> L.) Landraces from North Sulawesi, Indonesia: A Biomathematical Approach to Yield Trait Analysis	Dra. Fanny Nella Nanlohy, MP., DHET
14.15 - 14.30	79111	Identification of Pest and Disease Symptoms in Dalugha Plants (<i>Cyrtosperma merkusii</i> (Hassk.) Schott) in Talaud Islands Regency, North Sulawesi Province.	Dr. Jantje Ngangi
14.30 - 14.45	79103	Mathematical Modeling of Casson Fluid Hemodynamics in Central Retinal Vein Occlusion with Asymmetric Stenosis	Juan Randy Christian Putra

Parallel Session 2 Onsite (15.30 - 17.15 WITA)

Moderator: Isran K. hasan, M.Si

15.30 - 15.45	79114	Integrating Multivariate Morphometric Analysis of Fruit Fly (<i>Drosophila</i> spp.) into a CURE-Based Genetics Curriculum: A Biostatistical Learning Model	Herry Maurits Sumampouw
15.45 - 16.00	79108	Dynamics and Numerical Simulation of a Three-Population Mangrove-Microbe Mutualism Model	Riska Wahyu Romadhonia, M.Sc.
16.00 - 16.15	79115	Development of a Structured Screen-House-Based "Modern Nursery Model" to Improve the Quality and Uniformity of Patchouli Seedlings (<i>Pogostemon cablin</i>)	Prof. Dr. Arrijani, M.Si.
16.15 - 16.30	79118	Mangrove Morphometric Design in Phanerogamae Learning to Enhance Students' Critical Thinking Skills	Femmy R Kawuwung
16.30 - 16.45	79117	Effects of Fear-Response and Gestation Delays on a Harvested Tri-Trophic Food-Chain Model	Prof. Aldrin T. Balilo

Parallel Session 3 Online (13.50 - 17.15 WITA)
Room Zoom 201

Moderator: Dr. Raqqasyi Rahmatullah Musafir, M.Mat

Link Zoom: us06web.zoom.us/j/84748358206?pwd=pFa0250Xb47lcAPsIbATkcuBE8aAOB.1

ID Rapat: 847 4835 8206

Kode Sandi: FMIPAUNG

Time	ID	Title	Authors
13.50 - 14.20	Invited Speaker	Computational Modeling of Casson Fluid Flow in Atherosclerotic Coronary Arteries: Effects of Stenosis on Hemodynamic Parameters	Prof. Drs. Basuki Widodo, M.Sc., Ph.D.
14.20 - 14.50	Invited speaker	Effect of simvastatin to bladder senescence acitivity in protamin sulfate-induced intersititial cystitis rat model	dr. Abdi Dzul Ikram Hasanuddin, M.Biomed.
15.30 - 15.45	79201	How the pulse shape affects the network dynamics of spiking neurons	Afifurrahman
15.45 - 16.00	79204	An Explainable ResNet50-MLP Framework for Multi-Class Breast Cancer Classification	Thoriq Al Mahdi
16.00 - 16.15	79212	A Comparative Study on Parameter Estimation via PSO and GA in a Discrete-Time Monkeypox Transmission Model	Dr. Raqqasyi Rahmatullah Musafir, M.Mat
16.15 - 16.30	79202	Comparative Analysis of the Improved 5th-Order Runge-Kutta and 4th-Order Adams-Bashforth Methods for a Chlorophyll-a and Fish Population Interaction Model with the Weak Allee Effect	Dr. Muhammad Ikhwan, M.Si.
16.39 - 16.45	79205	Bifurcation Analysis and Sustainable Harvesting in a Two-Prey, One-Predator Coral Reef Fishery Model	Setiya Triharyuni
16.45 - 17.00	79217	Optimal Control of Digital Literacy Interventions in a Dynamical Model of Social Media Addiction	Mohamad Alfarezi Udingan
17.00 - 17.15	79213	Multilevel Bayesian Spatial Structural Panel VARX for Spatio-Temporal Data	Ani Budi Astuti

Parallel Session 3 Online (13.50 - 17.30 WITA)
Room Zoom 202

Moderator: Muhammad Rifki Nisardi, S.Si., M.Si.

Link Zoom: us06web.zoom.us/j/84748358206?pwd=pFa0250Xb47lcAPsIbATkcuBE8aAOb.1

ID Rapat: 847 4835 8206

Kode Sandi: FMIPAUNG

Time	ID	Title	Authors
13.50 - 14.20	Invited Speaker	Allometric Fecundity under Climate-Induced Demographic Decay: An Adaptive Size-Structured Harvesting Framework	Prof. Asep K. Supriatna
14.20 - 14.50	Invited speaker	Can the Key Drivers of Malaria Transmission Be Controlled? A Case Study of Indonesia	Dr. Chidozie W. Chukwu
15.30 - 15.45	79203	Exploration of Time Derivative Method, CUSUM and EWMA Control Chart to Determine The Onset of Influenza Outbreak in The Epidemic Forest Model	Dr. Yuki Novia Nasution, S.Si, M.Sc
15.45 - 16.00	79206	Survival Modeling of Athlete Injury Hazard for Fair Takaful Micro-Insurance Pricing	Silvina Rosita Yulianti
16.00 - 16.15	79207	Competing Risk Analysis of Non-Small Cell Lung Cancer Patients with Brain Metastases	Muhammad Bayu Nirwana, S.Si., M.Sc.
16.15 - 16.30	79216	Stability Analysis of TB and MDR TB Transmission Dynamics with Vaccination and Treatment	Ainishafa, S.Mat
16.30 - 16.45	79214	Mathematical Model of Meningitis Transmission using Fractional Caputo Derivatives	Muhammad Rifki Nisardi, S.Si., M.Si.
16.45 - 17.00	79211	Modeling Syphilis transmission with two-time delay and heterogenous risk behavior	Raiba Afreen Chowdhury
17.00 - 17.15	79119	A Mathematical Model of Municipal Solid Waste Management with Age-Structured Population and Three Waste Classifications	Riri Sadiana
17.15 - 17.30	79215	Role of refugia plants and pathogen infection in integrated pest management: A fractional-order modeling approach	Muhammad Luthfi

Parallel Session 3 Online (13.50 - 17.30 WITA)
Room Zoom 203

Moderator: Rudy Kusdiantara, Ph.D

Link Zoom: us06web.zoom.us/j/84748358206?pwd=pFa0250Xb47lcAPsIbATkcuBE8aAOOb.1

ID Rapat: 847 4835 8206

Kode Sandi: FMIPAUNG

Time	ID	Title	Authors
13.50 - 14.20	Invited Speaker	Bifurcation Analysis of a Delayed Tumor Therapy Model using Oncolytic Virus	Prof. Dr. Fajar Adi Kusumo
14.20 - 14.50	Invited Speaker	When Control Has Limits: Non-Smooth Dynamics of Dengue under Hospital Capacity and Reactive Fogging	Prof. Dr. Dipo Aldilla, S.Si., M.Si.
15.30 - 15.45	79209	Bistability, Recovery Threshold, and Saddle--Node Bifurcation in a Two-Stage Coral Dynamics Model with Restoration	Dr. Maya Rayungsari, M.Si.
15.45 - 16.00	79210	Spatial and Mathematical Modeling of Pasang ri Kajang Ecotheology for Customary Forest Biomass Resilience	Zulfiqar Busrah, M.Si
16.00 - 16.15	79101	A Hybrid Physics-Informed Neural Network Integrating SIR Dynamics and Delayed Rainfall Effects for Dengue Forecasting in Colombo City, Sri Lanka	Dr. K.K.W. Hasitha Erandi
16.15 - 16.30	79101	A Time-Frequency Characterisation of Auditory Processing in Children with Autism Spectrum Disorder	Dr. K.K.W. Hasitha Erandi
16.30 - 16.45	79106	Bayesian Spatial Survival Models for Deforestation in Indonesia: Cox Proportional Hazards and Accelerated Failure Time	Robyn Irawan
16.45 - 17.00	79104	A hybrid stage-structured ODE and deep learning model for climate-driven dengue risk mapping	Diki Fernandi
17.00 - 17.15	79116	Fractional Diffusion Reshapes Busse Balloons in an Evasion-Tipping Model of Dryland Vegetation	Rudy Kusdiantara, Ph.D
17.15 - 17.30	79208	Dynamic Analysis of Predator-Prey Models with Anti-Predator and Additional Food Using Holling Type III Response Function	An Nisa Salsabila, S.Mat.