

Session Program

12-17 Jul 2026



**European Conference on Mathematical and Theoretical
Biology (ECMTB 2026)**

***Mathematical Modeling of Infectious Diseases: Classical
Foundations to Contemporary Approaches***

University of Graz

Thursday 16 July

17:00

Mathematical Modeling of Infectious Diseases: Classical Foundations to Contemporary Approaches

Session | Location: University of Graz, 15.02 - HS

17:00–17:20

Optimizing HIV Antiretroviral Therapy Strategies: A Multi-Scale, Multi-Objective Framework for Reconciling Individual--Population Trade-offs

Speaker

Stacey Smith?

17:20–17:40

The population-level implications of immune boosting and immunological priming

Speaker

Nir Gavish

17:40–18:00

A Hybrid Networked SEIR Model with Generative-AI Driven Agents for Behavioral Heterogeneity in Epidemics

Speaker

Jia Zhao

18:00–18:20

The young shield: Mathematical modeling of the impact of age-targeted and dose-structured vaccination on malaria dynamics

Speaker

Arnaja Mitra

18:20

Friday 17 July

10:40

Mathematical Modeling of Infectious Diseases: Classical Foundations to Contemporary Approaches

Session | Location: University of Graz, 15.02 - HS

10:40–11:00 Optimal release of sterile males in the sterile insect technique for *Anopheles* mosquitoes

Speaker

Alex Safsten

11:00–11:20

Incorporating thermal performance curves into population dynamic models for the West Nile vector, *Culex pipiens*

Speaker

Ben Bruncati

11:20–11:40

The Prospective & Retrospective Outlook of COVID-19 via Mathematical Modeling

Speaker

Prashant Kumar Srivastava

11:40–12:00

The effect of co-infection on disease transmission in plants with multiple transmission pathways

Speaker

Hannah Hirsch

12:00