Session Program

12–17 Jul 2026

European Conference on Mathematical and Theoretical Biology (ECMTB 2026)

Dynamics of Vector Populations and Pathogen Transmission

University of Graz

Tuesday 14 July

15:00

Dynamics of Vector Populations and Pathogen Transmission

Session | **Location:** University of Graz, 02.11 - HS

15:00–15:20

Could malaria mosquitoes be controlled by periodic releases of transgenic mosquitocidal Metarhizium pingshaense fungus? A mathematical modeling approach.

Speaker
Salman Safdar

15:20–15:40

Modeling the Geospatial Dynamics of Lyme Disease in Maryland Under Current and Projected Climate Change Scenarios

Speaker
Salihu Musa

15:40–16:00

Investigating the Impact of Novel Transmission-Blocking Anti-malarial Drugs: A Mathematical Modeling Approach

Speaker
Woldegebriel Assefa Woldegerima

16:00–16:20 **Mathematics of Wolbachia-based biocontrol of mosquito-borne diseases**

Speaker
Abba Gumel

16:20

Thursday 16 July

15:10

Dynamics of Vector Populations and Pathogen Transmission

Session | **Location:** University of Graz, 03.01 - HS

15:10–15:30

Unseen but not unstoppable: Quantifying the impact of human compliance and mass screening and treatment on cryptic asymptomatic malaria transmission

Speaker
Arnaja Mitra

15:30–15:50

Decision-Support Modeling for One Health Pathogens: Using Mechanistic Models for Surveillance and Forecast Design

Speaker
Joshua Macdonald

15:50–16:10

Rethinking mosquito biting rates: exploring how disturbed blood-feeding shapes vectorial capacity

Speaker
Kyle Dahlin

16:10–16:30

Variable impact of density-dependent life history traits on the success of mosquito population reduction strategies

Speaker
Lauren Childs

16:30

Friday 17 July

10:40
12:00

Dynamics of Vector Populations and Pathogen Transmission

Session | **Location:** University of Graz, 01.22 - HS