

Session Program

12-17 Jul 2026



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

Computational Modeling of Cerebrovascular Dynamics

University of Graz

Friday 17 July

10:40

Computational Modeling of Cerebrovascular Dynamics

Session | Location: University of Graz, 01.15 - HS

10:40–11:00

Eye2Heart: A reduced mathematical model bridging cardiovascular and ocular hemodynamics

Speakers

Alon Harris, Faith Hughes, Giovanna Guidoboni, Lorenzo Sala, Marcela Szopos, Mohamed Zaid, Sergey Lapin, Virginia Huxley

11:00–11:20

Quantifying haemodynamic forces across autoregulated cerebral micro- networks using a computational modelling approach

Speakers

Alberto Coccarelli, Ammar Al-Areqi

11:20–11:40

Modelling Cerebral Autoregulation at the Microvascular Scale: From Health to Post-Stroke Dysfunction

Speaker

Chryso Lambride

11:40–12:00

Mechanistic modeling of closed-loop cerebrovascular reactivity

Speakers

Helen Harris, Laura Ellwein Fix

12:00