

Session Program

12-17 Jul 2026



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

Plant models: mechanics, development and environment

University of Graz

Thursday 16 July

17:00

Plant models: mechanics, development and environment

Session | Location: University of Graz, 02.01 - HS

17:00–17:20

Going underground: roots and rhizosphere hydraulic processes impacting plant response to drought

Speaker

Mutez Ahmed

17:20–17:40

Geometry hidden in plain stress, Exploring the relationship between pressure-induced stresses and geometry in plant tissues.

Speaker

Olivier Ali

17:40–18:00

Fluid mechanics of the plant cell wall: from cellulose reorientation to twisting growth

Speaker

Galane Luo

18:00–18:20

The biomechanical basis of fixed handedness coiling in Cardamine fruit valves

Speaker

Gabriella Mosca

18:20

Friday 17 July

10:40

Plant models: mechanics, development and environment

Session | Location: University of Graz, 02.01 - HS

10:40–11:00 **Three-dimensional multiscale modelling of plant tissue mechanobiology**

Speaker

João R. D. Ramos

11:00–11:20 **Impact of cellular geometry on the effective mechanics of growing plant tissues**

Speaker

Annamaria Kiss

11:20–11:40 **Busse balloon Barbapapa**

Speaker

Eric Siero

11:40–12:00

Understanding the Biomechanics of Plant Tissues: the consequences of cell division, shape and arrangement

Speaker

Euan Smithers

12:00