

# Working with Dynamic Soil-Crop Models – an Intensive Course

A Summer School for graduate students and professionals September 17<sup>th</sup>-22<sup>th</sup>, 2023, Kassel University, Germany

Soil-crop models are crucial to evaluate agricultural system management scenarios, forecasting climate change impacts, proposing new crop ideotypes and many more. While many crop models and modeling platforms exist, using them effectively requires an understanding of the major methods and main principles for practical application.

#### Instructors and hosts

- Main Instructor: Daniel Wallach: Distinguished Emeritus Professor, University of Bonn,
  Research Director INRAe (ret), 1st author of the book Working with Dynamic Crop Models.
- Prof. Dr. Tobias Weber, Universität Kassel
- Prof. Dr. Efstathios Diamantopoulos, Universität Bayreuth

#### Content

- Introduction to principles of crop modelling
- sensitivity and uncertainty analysis
- model calibration and evaluation methods
- use of multi-model ensembles
- new insights to crop model calibration from
- on-going AgMIP projects

- Principles, use cases, examples, food-for-thought sessions
- hands-on practice (power programming using a simple yet realistic soil-crop using the R programming language)

Co-hosted by

### Registration

**Deadline:** 31.05.2023 (early bird), 31.07.2023 (regular)

Course fee: 550€ (early bird), 650€ (regular),

incl. social dinner and ISMC membership

**Apply to:** Send an e-mail to sekr.boku@uni-kassel.de

stating "Summer School 2023" in the subject line

# ISMC International Soil Modeling Consortium

## Location and accommodation

- Steinstraße 19, Witzenhausen (link; by train 20 min from Göttingen, 30 min from Kassel)
- Self-organised: Rooms reserved until 31 May at <u>Frau Holle-Land-Hotel</u> (65€ pP single, 75€ pP double, exkl. breakfast) an <u>DEULA Witzenhausen</u> (51.50€ pP single, 81€ pP double, incl. breakfast). Use code Summer School 2023 for booking requests

#### **Prerequisites**

Basic understanding of the Soil-Plant-Atmosphere System and familiarity with R is recommended. An optional introduction to R will be provided on Sunday afternoon, Sep 17.