Four years after the first International Crop Modelling Symposium in Berlin (iCROPM2016), crop modelers from around the world will meet at the iCROPM2020 Symposium in the Corum Conference Centre of Montpellier, France to exchange on advances in crop modelling and identify challenges and new opportunities for future research.

iCROPM2020 will focus on recent improvements and applications of crop simulation models to better support agricultural production and food security under global change. All types of crops and cropping systems (arable, grasslands, perennial crops, intercrops, etc..) and world regions will be considered, including high and low inputs systems, with relevance for large agricultural enterprises to smallholder farmers, under climate change.

Symposium Chairs
- Eric Justes (CIRAD, France)
- Senthold Asseng (Univ. of Florida, USA)
- Frank Ewert (ZALF, Germany)
- Marie Launay (INRA, France)
- Pierre Martre (INRA, France)
- Christophe Pradal (CIRAD & INRIA, France)

iCROPM2020 web site
http://www.icropm2020.org

iCROPM2020 secretariat
contact@icropm2020.org
Rationale and aims

Agriculture faces multiple crucial challenges. Achieving food security in the face of growing global population and increasing resource scarcity remains a central priority. When considered together with various global change drivers and the potential role of agriculture in climate mitigation, innovative approaches to growing crops are clearly required. Crop models are increasingly called upon to understand and disentangle the environmental factors driving crop production and to support the design of improved genotypes and new cropping systems, thereby assisting in the transformation of agriculture. While the development of connected sensors and the Internet of Things offer opportunities it also necessitates novel crop modelling approaches.

The aims of iCROPM2020 are to:

- review advances in crop modelling and identify challenges and new opportunities for future research;
- explore possible adaptation options of agriculture to climate and global changes and the contribution of agriculture to climate change mitigation.

Main sessions

1. Improvement of crop models
2. Crop modelling for ecological intensification
3. Linking crop/plant models and genetics
4. Linking crop models to data stream systems in the digital age
5. Crop modelling for risk and impact assessment
6. Methods and software to support modelling activities

Scientific committee members

- Bruno Basso (MSU, US)
- Kenneth Boote (UF, US)
- Karine Chenu (UQ, AU)
- Roberto Confalonieri (UNIMI, IT)
- Marc Corbeels (CIMMYT & CIRAD, KE)
- Jochem Evers (WUR, NL)
- Dean Holzworth (CSIRO, AU)
- Gerrit Hoogenboom (UF, US)
- Françoise Lescourret (INRA, FR)
- Guillaume Lobet (UCL, BE)
- Delphine Luquet (CIRAD, FR)
- Dylis MacCarthy (UG, GH)
- Charlie Messina (Corteva Agri., US)
- Christoph Müller (PIK, DE)
- Class Nendel (ZALF, DE)
- Jørgen Olesen (UA, DK)
- Elisabeth Pattey (AAFC, CA)
- Cheryl Porter (UF, US)
- Vittorio Rossi (USCS, IT)
- Reimund Rötter (UG, DE)
- Alex Ruane (NASA, US)
- Claudio Stöckle (WSU, US)
- Peter Thorburn (CSIRO, AU)
- Vincent Vadez (IRD, FR)
- Heidi Webber (ZALF, DE)
- Xiaogang Yin (CAU, CN)
- Xinyou Yin (WUR, NL)
- Yan Zhu (NAU, CN)

Preliminary programme

3 days, organized each day with: 1 plenary session, 3 parallel sessions, 1 poster exhibition and/or 1 model demonstration

iCROPM2020 Symposium (3–5 February 2020)
The symposium will focus on recent scientific work related to model improvement, development and use of the experimental data for modelling, and on advancements in model applications considering new methods of model intercomparison, uncertainty propagation and scaling.

While the main focus will be on crops (arable and grasslands) and crop-soil interactions, progress in related topics, like intercropping agroforestry, agroecology, and integrated assessment modelling will be also addressed.

Digital farming and efforts to integrate crop and plant modelling (FSPM) with high-throughput phenotyping and genetic improvement will be considered, as well as new modelling approaches and links to big data facilitated by innovative software technologies.

Side Meetings (6–7 February 2020)
Satellite workshops and training courses on modelling will be organized on 6 and 7 February 2020 in Montpellier (at CIRAD and other places) by various research groups/teams (STICS model seminar, etc.), projects (Crops in silico, etc.), initiatives (AgMIP exercises, etc.) and courses (“Working with crop models”, etc.). More detail will be gradually published on iCROPM2020 web site.

Deadlines
- Abstract submission
  - Opening: 31 May 2019
  - Deadline: 30 August 2019
- Registration & Payment
  - Opening: 31 May 2019
  - Early-bird deadline: 15 November 2019

Location and Accommodation
All practical information will be regularly implemented in iCROPM2020 web site:
http://www.icropm2020.org

Montpellier city and Occitania region
To discover Montpellier city:
https://www.montpellier-france.com/

To discover Occitania Region:
https://www.tourism-occitanie.co.uk/