



## Modelling plant development from the organ to whole plant scale

It is a pleasure to invite you in Montpellier, France (Agropolis campus) to attend a workshop covering the latest advances in plant modelling. The aim of this two-day meeting is to illustrate the benefits of a multidisciplinary approach associating plant biologists, physicists, mathematicians and computer scientists to tackle important issues in plant biology.

### **Thursday 9<sup>th</sup> April 2015**

9:15 **by Mathieu Javaux.** Deciphering soil plant relations with a detailed numerical model.

10:30 **by Céline Richard-Molard.** Deciphering genotypic variability of plant adaptation to N supply by combining a whole plant CN functioning model (ARNICA) and a root architecture model (MiniROOT) on *A. thaliana*.

11:45 **by Yann Boursiac.** Building a root hydraulic architecture with keyboard and pipettes.

14:15 **by Lionel Dupuy.** Mechanisms of early establishment of bacterial population in the rhizosphere.

15:30 **by Guillaume Lobet.** Introducing Root System Markup Language, a new toolbox to link experimental data with simulation.

16:45 **by Wouter Bac.** Imaging of plant parts for robotic harvesting or phenotyping.

### **Friday 10<sup>th</sup> April 2015**

09:15 **by Bruno Andrieu.** Toward a wheat FSPM with detailed account of C and N metabolism.

10:30 **by Johanna Bac-Molenaar.** Growth curve fitting allows for integration of the time-axis into GWA mapping of dynamic traits.

11:45 **by Jean Baptiste Burie.** Modelling fungal diseases of vine at the plot scale using partial differential equations.

14:15 **by Loic Tadrist.** Foliage mechanics in wind: multi-scale approach and biological consequences.

15:30 **by Pierre Couteron.** From plant morphology to plant community patterns: a minimalistic modelling approach traducing interplant facilitation and competition in resource-limited environments.

Abstracts will be available on <http://www.plantnum.agropolis.fr>. **To register, send an email to Mrs L. Fontana ([laurence.fontana@inria.fr](mailto:laurence.fontana@inria.fr)) before March 31<sup>th</sup>.** Registration is free but compulsory due to space limitation. Please indicate in your email if you want to have lunch on site (10 euros payable with credit card). For access to Agropolis, visit <http://www.agropolis.fr/>.

**Organising Committee:** Thierry Fourcaud (CIRAD), Christine Granier (INRA), Yann Guédon (CIRAD), Soazig Guyomarc'h (UM2), Laurent Laplaze (IRD). This Seminar is organised with the financial support from Agropolis Fondation (<http://www.agropolis-fondation.fr/>) and Agropolis International (<http://www.agropolis.fr/>)

