

**Year of CfP: 2008**

**Project No 0803-008**

<b>Project title:</b> Agropolis computational plant seminar
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**Units managing the project:** AGAP (Genetic improvement and Plant adaptation) (CIRAD, INRA, Montpellier SupAgro), LEPSE (Ecophysiology of Plants under Environmental Stresses) (INRA, Montpellier SupAgro), DIADE (Diversity, Adaptation and development of Plants) (IRD, UMII)

**Project leaders:** Yann Guédon (AGAP, guedon(a)cirad.fr), Christine Granier (LEPSE), Laurent Laplace (DIADE)

**Sub-thematic axis:** IPB-1 (Integrative Plant Biology 1: *Genetics and genomics, plant breeding, ecophysiology*), IPB-2 (Integrative Plant Biology 2: *Plant pests and diseases, integrated crop protection, population ecology*), STDI-1 (Socio-Technical Dynamics of Innovation 1: *Agri-environmental innovations, agri-ecosystems, resources management*), STDI-3 (Socio-Technical Dynamics of Innovation 3: *Innovation processes, social management of innovations*)

**Objectives:**

Many researchers from different disciplines (biology, computer science, applied mathematics) are involved in the development of mathematical models and methods applied to plant structures and functions. These researchers are scattered in different research units in Montpellier and are not always well connected with the computer science and applied mathematics scientific communities. While internal seminars already exist in research units and seminars attached to well-defined scientific disciplines exist in Montpellier (different domains of plant biology, applied statistics and computer science), there is a lack of a multidisciplinary seminar devoted to the modelling of plant structures and functions.

This proposal aims to organize monthly seminars and a yearly one-day workshop in Agropolis. This workshop will be devoted to a specific topic selected each year and keynote speakers will be invited. One objective is to make this workshop a national scientific event. All the scales from cell and tissue to the entire plant will be of interest. Equilibrium between presentations devoted to sub-organ scales and presentations devoted to macroscopic scales will be ensured.

All plant types will be of interest (tropical, Mediterranean and temperate plants, model plants, annual plants, fruit and forest trees). The scope of the seminar will not only concern models of plant structures and functions of different nature but also mathematical and computer tools for analyzing digitized plant structures and the integration of heterogeneous tools and models in software platforms.

A web site will be created for the seminar. This web site, preferentially hosted by Agropolis, will contain the program, the summaries of the past and planned presentations with links to the speaker's personal pages and the announcement for the yearly workshop.

**Total Agropolis Fondation funding:** € 31,200 (workshops and speaker invitations)

**Funding categorie(s):** Agropolis Fondation small grants (support for the organisation of high-level scientific events e.g. conferences, seminars)

**Project duration:** 1 January 2009 – 31 December 2011

**Keywords:** plant – computer science – seminar