

Deadlines

March 31, 2003 First call for papers

September 30, 2003 Second call for papers, announcement regarding invited speakers, registration, accommodation and travel information

November 30, 2003 Abstract submission deadline

February 27, 2004 Notification of acceptance, early registration confirmation

Scientific Committee

[B. Andrieu \(INRA, France\)](#)

[D. Barthélémy \(INRA, France\)](#)

[C. Beveridge \(University of Queensland, Australia\)](#)

[T. DeJong \(U. Davis, US\)](#)

[E. Dreyer \(INRA, France\)](#)

[T. Fourcaud \(CIRAD, France\)](#)

[A. Franc \(INRA, France\)](#)

[C. Godin \(INRIA, France\)](#)

[J. Hanan \(University of Queensland, Australia\)](#)

[W. Kurth \(U. Technology Cottbus, Germany\)](#)

[X. Leroux \(INRA, France\)](#)

[A. Lacoite \(INRA, France\)](#)

[P. Lewis \(London College, U.K.\)](#)

[C. Messier \(GREFi, Canada\)](#)

[E. Nikinmaa \(U. Helsinki, Finland\)](#)

[L. Pagès \(INRA, France\)](#)

[P. Prusinkiewicz \(U. Calgary, Canada\)](#)

[W. Remphrey \(U. Manitoba, Canada\)](#)

[R. Sievänen \(METLA, Finland\)](#)

[H. Sinoquet \(INRA, France\)](#)

[A. Seleznyova \(HortResearch, New-Zealand\)](#)

[A. Takenaka \(NIES, Japan\)](#)

[J. Vos \(U. Wageningen, The Netherlands\)](#)

Organising Committee

[D. Auclair \(INRA, France\)](#)

[P. Barbier de Reuille \(INRA, France\)](#)

[F. Boudon \(INRA, France\)](#)

[E. Costes \(INRA/ENSAM, France\)](#)

[P. Ferraro \(U. Bordeaux, France\)](#)

[C. Godin \(INRIA, France\)](#)

[P. Heuret \(INRA, France\)](#)

[H. Krit \(CIRAD, France\)](#)

[M. Lafond \(CIRAD, France\)](#)

[C. Pradal \(CIRAD, France\)](#)

Contact

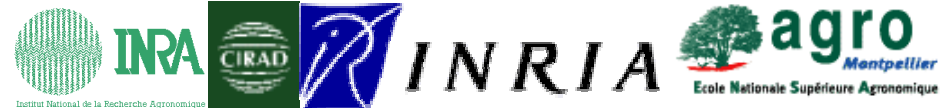
Christophe Godin,

UMR AMAP, Botanique et Bio-Informatique de l'architecture des plantes
TA 40 / PS 2, boulevard de la lironde 34 398 Montpellier, France

Phone : (33) 4 67 61 65 77

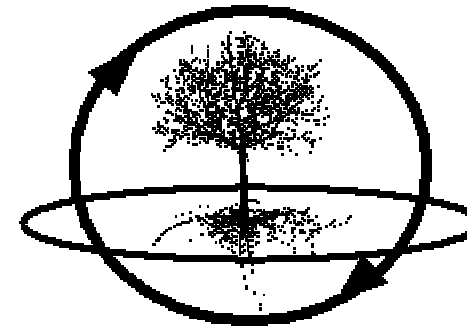
E-mail : christophe.godin@cirad.fr

<http://amap-e-learning.cirad.fr/workshop/fspm04.html>



4TH International Workshop on Functional-Structural Plant Models

1st Call for Papers



07-11 June 2004
Campus ENSAM/INRA
2, place Viala
Montpellier
France



Aim of the series

"Computer models that treat plants as consisting of elementary units have become increasingly popular. The core of such a model is the description of what happens in a single element. [...]. A computer program takes care of all the elements and integrates their activities to the functioning of the whole plant. Both the 3-D architecture and the metabolic processes can be treated in the same model at the same time in a natural way. Increasing speed of computers, developing programming tools and available mathematical techniques have made the construction of such models increasingly feasible". Risto Sievänen, Annikki Mäkelä, Eero Nikinmaa, organisers of the first FSPM workshop (preface of *Silva Fennica*, Vol 31, issue 3, 1997).

This short text sketches the spirit of this series of workshops initiated in 1996: The goal is to regularly assemble scientists from all over the world, who integrate 3-D representations of plants, physiological models, environmental models, computer science and mathematics into their approach. The general aim of this community is to better understand the complex biological processes that are involved in plant functioning and growth, by designing and making use of advanced computer simulation techniques.

Background

This meeting is the 4th edition in the FSPM series. The first meeting was organized in Helsinki (Finland, Dec. 1996) and focused on the modelling of the distribution of growth within an individual tree, and the mathematical description and measurement of 3-Dimensional (3D) tree structure (see the special issue of *Silva Fennica*, Vol 31, issue 3, 1997). The second meeting, which kept on the same scientific track, was held in Clermont-Ferrand (France, Oct. 1998). About 100 researchers from 24 countries attended this meeting (see the special issue of *Annals of Forest Science*, Vol57, n°5/6). The third meeting (see <http://www.unites.ugam.ca/gref/workshop/workshop.htm>) was held in Montreal (Canada, Sep 2001) and broadened the series to include models of stand structure and function. This series of workshops greatly contributed to the identification of a worldwide scientific community with shared interests in plant architecture analysis and modelling (see <http://pais.cirad.fr>).

The current meeting will extend the series to all types of plants (woody and herbaceous) and will focus on approaches that analyse or use plant 3-D architecture.

Programme sessions (provisional)

- S1: Measurement and representation of plant architecture and environment (new techniques, data bases, standards, new botanical concepts)
- S2: Analysis method and tools (statistics, geo-statistics, structure analysis in plant architecture)
- S3: Models of resource use and internal processes (water, element transport and allocation, phenology, signals)
- S4: Models of interaction with the environment (climate, soil, plants, pests, animals)
- S5: Modelling/simulation/assessment methods and tools (theory and software, integrated models of plants, model inversion)
- S6: Application of Functional/Structural models to problem solving in agronomy, forestry and ecology
- S7: New trends in plant architecture modelling (genomics, temporal and spatial scaling problems, tissue modelling, ...)
- S8: Software demo session (coupled with session on modelling methods and tools)
- S9: Poster session
- S10: Social event

Paper submission

Extended and short abstracts of original work are solicited. Both types of abstracts will be considered by the scientific committee, following the same submission and notification of acceptance deadlines.

- Extended abstracts should be 4 to 5 pages long (A4 or letter-size), including figures and bibliography, in Times 12 pt, single spaced, in either doc, rtf or pdf formats. Results need not be final. Selected extended abstracts will be presented in a 20 minute talk.

- Short abstracts should be 1 page long, including 3 references related to the described work, in Times 12 pt, single spaced, in either doc, rtf or pdf formats. Short abstracts will correspond to a poster submission.

All abstracts will be printed in workshop proceedings available to participants at the beginning of the meeting. Authors of extended abstracts who cannot be invited to deliver an oral presentation may be asked to prepare a poster. The authors of all work presented at the workshop (including posters) will have an opportunity to submit their work to a special issue of a peer-review international journal (to be announced).