

International Workshop on Tree Stability Modelling

Atelier international sur la modélisation de la stabilité des arbres

ABSTRACT

This workshop aimed in: (i) presenting the actual models, methods and computing tools that are available for tree stability investigations and prediction at the tree and stand scales; (ii) discussing about standardisation and integration of these methods and tools in decision support systems; (iii) deciding how to strengthen and make permanent the animation of this tree stability research network, and how to enhance and support international collaborations on this topic.

The workshop hosted 32 participants, including 3 invited speakers, from 9 different countries (Brasil, Canada, Finland, France, Germany, Italy, Japan, New Zealand, United Kingdom). Presentations took the form of short talks (18) and software demonstrations (5). A large place was devoted to open discussions. The program was split into three main sections devoted to (i) mechanical models of tree/stand stability; (ii) making the connexion between tree/stand growth and tree stability models; (iii) computer platforms that can host these models.

In addition, an introduction to the concepts and models of tree architecture has been presented at the beginning of the workshop. How to describing and model tree architecture, i.e. the dynamical evolution of tree topology and geometry, have been widely investigated in AMAP (the research unit which host this workshop), and we think that these concepts will help in improving approaches and models to study tree mechanical stability. An example of collaborative software development and sources sharing was also presented. At the end of these three days, a round table was organized in order to conclude this workshop and to decide about the future of this tree stability group. This web page will be renamed www.forestry.gov.uk/windandtrees and use to share informations, documents and software within the tree stability network. All documents and presentations are available on <http://www.forestry.gov.uk/fr/INFD-83NDFP#oct09>.

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Flagship project : no

Project leader : Thierry Fourcaud Tancrede Almeras

Project leader's institution : CIRAD

Project leader's RU : AMAP

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Total budget allocated (including co-financing) : 4805 €

Funding : RTRA

PERSPECTIVES

It was first decided to continue organizing regular workshops (1 per year) on the topic of wind hazards in forest. The next one will be devoted to tree acclimation and adaptation to wind and will take place in UMR PIAF, Clermont-Ferrand (France).

The group also proposed to make an European COST action that could help in animating the network and encouraging collaboration projects.

Last, we building the foundations for the development of a software plateform dedicated to the simulation of wind risks in forest. This project should be further discussed within the group.