



Sachverständigen-Arbeitsgemeinschaft

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Vorstand:
Michael Schlag, Klaus Schöpe
Andreas Detter, Hermann Reinartz

12th SAG Workshop

on October 4th 2016 in Nancy, France

Topic:

Advances in biomechanics and mechanobiology for the diagnostic of urban trees

Over the last 3 decades, the biomechanical inputs for the analysis of urban trees have been largely developed, starting with the seminal works of Lothar Wessolly and Klaus Mattheck. As a consequence, leading experts in the diagnostic of mechanical stability and safety of urban trees are now using techniques of biomechanical engineering such as model of static wind loads on trees and/or static tension-flexion tests.

We would like to make an update and to share ideas with arboriculture experts about novel findings from the biomechanics and mechanobiology research along 3 lines directly related to tree safety: crown reconfiguration in wind, dynamics and compartmentalization of mechanical energy, long term acclimation of trees (see program).

The following exchange between scientists and expert will be on i) how to improve current biomechanical tools for the mechanical analysis of trees and ii) how we may change from punctual diagnosis to longitudinal monitoring and long-term diagnosis.

language	English, translations to and from French and German on request	
time	Tuesday, 4.10.2016, 8:30 am to 5:30 pm	
location	INRA Centre de Nancy, Rue d'Amance, 54280 Champenoux, France building and room number to be announced	
fees	SAG-members	only for food and drinks
	non-members	245.- € plus VAT
rooms	QuickPalace www.quickpalace.com/hotel-25-nancy.html midway between Nancy and INRA, Ibis www.ibis.com/fr/hotel-3684-ibis-budget-nancy-centre/index.shtml or Stanislav www.hotel-stanislas.fr/ in Nancy	
regISTRATION	a.akontz@tree-consult.org or phone +49-89-752150	



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Program for the

12th SAG Workshop

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Hosts and presenters:

Dr Bruno MOULIA, Directeur de Recherches INRA, Group leader of the Plant Mechanobiology Group “MECA”, Handling editor of the Journal of Experimental Botany, Chairman of Plant Biomechanics World Conference 2012, UMR PIAF, Clermont-Ferrand, France

Dr Eric BADEL, Chargé de Recherche INRA, Wood and tree biomechanics and hydraulics, UMR PIAF, Clermont-Ferrand, France

Dr Jana DLOUHÁ, Chargée de Recherches INRA, Wood and Tree Biomechanics, UMR LERFOB Nancy, France

Dr Vivien BONNESOEUR, post doc in the MECA Group, France

8:30 am opening, registration

8:45 am welcome, introduction

9:00 am **“The geometrical reconfiguration of the crown with wind and its consequences on the drag factor of the tree”**

Dr Vivien Bonnesoeur and Dr Jana Dlouha

10:45 am Coffee break

11:15 am **“The dynamics of trees in wind: compartmentalization of mechanical energy and tree safety“**

Dr Bruno Moulia

1:00 pm lunch break

2:30 pm **“Long term acclimation of trees to the prevailing wind: how trees learn from the wind”**

Dr Vivien Bonnesoeur

3:45 pm Coffee break

4:15 pm general discussion, debate

5:30 pm end