



**Società di Ortoflorofrutticoltura Italiana**  
*Segreteria Generale*

## **Advanced course on Biomechanics of the Trees Pistoia (Italy) 5-9 June 2017**

The course is hosted by the Uniser Consortium and organised by the Department of AgriFood Production and Environmental Sciences in cooperation with the Italian Society of Arboriculture and the Italian Society of Horticulture.

Patronage has been also asked to the International Society of Arboriculture

The Course is dedicated to PhD students, postdoc scientists, researchers, professors, technicians and municipal arborists with a sound background in plant biology and arboriculture and will give an advanced knowledge and training on basic themes as well as research results related to plant physiology and biomechanics with special focus on plant stability.

**English will be the official language. Simultaneous translation in Italian will be provided**

The Course will include 18 hours of lectures and 6 hours of field work distributed over 4 days, starting monday 5<sup>th</sup> in the afternoon and ending friday 9<sup>th</sup> at lunchtime.

Participants will receive a certificate signed by the lecturers, as well as the Organizers.

Registration fees (annex 1) include 18 hr of lectures at the Uniser Consortium, 6 hours of field workshop in the nursery, working material and 3 days of lunches.

SOI / SIA / ISA Members benefit of a 20% reduction in registration fees.

The application form (annex 2) will be also available at SOI website ([www.soishs.it](http://www.soishs.it)).

The Course will be held at the Uniser Consortium building, located at walking distance from the Pistoia railway station. Florence is at about 30 minutes by train/car

Course Director is Prof. Francesco Ferrini, University of Florence

**Application deadline is 15<sup>th</sup> of May**

For information and on line application contact: mr Francesco Baroncini ([segreteria@soishs.org](mailto:segreteria@soishs.org))



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## Speakers

**Barry Gardiner** ([see cv here](#))

Microclimatology of agroforests and shelterbelts, the development of turbulence over forest edges and the adaptive growth of trees in response to the wind.  
Models of tree mechanical behaviour and airflow over forests.  
Risk of wind damage for forests in complex terrain



**Bruno Moulia** ([see cv here](#))

The dynamics of wind-tree interactions, mechanosensing, thigmomorphogenesis and wind acclimation, posture control vs gravity and growth (gravisensing, proprioception, mechanics and control of the bending movement, reaction woods



**Duncan Slater** ([see cv here](#))

Anatomy of branch junctions (to include bark-included junctions)  
Natural bracing in trees  
UK arboriculture's assessment and treatment of branch junctions in trees  
Thigmomorphogenesis in relation to branch junction and tree form



**Brian Kane** ([see cv here](#))

Pruning and likelihood of failure, how defects affect the load-bearing capacity of trees and branches, forces generated in rigging trees for removal, sway characteristics of cabled trees, withdrawal resistance of lags used to anchor cables, effect of defects and maintenance on likelihood of failure.





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**Frank Telewski** ([see cv here](#))

1) Basic tree biology- types of wood (juvenile vs mature; normal vs reaction (tension, compression, flexure); early vs latewood; non-porous vs porous; diffuse porous vs ring porous). 2) Introduction to tree biomechanics and hazard trees. 3) Thigmomorphogenesis: Wind loading in trees, perception and acclimation.



**Gilman Edward** ([see cv here](#))

Measuring young tree stability and lodging.  
Growing high quality root systems.  
Can pruning reduce tree damage in storms.  
Pruning strategies leading to enhanced stability.



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in cooperation with:



CEU units have been asked to ISA

La partecipazione al Congresso permetterà di acquisire crediti formativi per gli iscritti agli Ordini dei Dottori Agronomi e dottori Forestali. Il totale dei crediti sarà reso noto quanto prima



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### **Annex 1**

Registration fees must be paid after communication of acceptance sent by SOI secretariat

#### **Payment made before 15<sup>th</sup> April 2017**

SOI / SIA / ISA Members*	400
Non SOI / SIA / ISA Members	470

#### **Payment made after 16<sup>th</sup> of April**

SOI / SIA / ISA Members*	450
Non SOI / SIA / ISA Members	520

\* membership has to be validated at registration time (please, indicate membership number).  
Please, take note of the deadlines for registration and remember to update your SOI / SIA / ISA 2017

#### **Payments must be made via Bank transfer to:**

Società di Ortoflorofrutticoltura Italiana (SOI)  
Cassa di risparmio di Firenze, Ag. 1 di Sesto Fiorentino  
IBAN Code IT 64 A 06160 38103 000011476C00  
BIC Swift code CRFIIT3FXXX

To the order of Società di Ortoflorofrutticoltura Italiana (SOI)  
Object: Advanced Course on Biomechanics

Once arranged, a copy of the payment statement must be sent by e-mail  
[segreteria@soishs.org](mailto:segreteria@soishs.org)

Registration fees include:

18 hrs of lectures at Uniser Consortium  
6 hrs of field works and visit to nursery in Pistoia  
working lunches for tuesday wednesday thursday  
working material  
certificate of attendance



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### **Annex 2 - Pre-Registration form**

Please enter your personal details below. These data will be used for all contacts prior and during the seminar.

First Name(s):

Last Name:

Place of birth:

Date of birth:

Male

Female

Present Nationality:

Education Details:

Occupation:

Country:

ZIP Code:

City:

Street:

Organisation/Institution:

E-mail: