

## Information and registration

Venue: Free University of Bozen-Bolzano  
Piazza Università 1  
39100 Bolzano (BZ)  
Italia

Room: Aula A518 (A-Building)

Language: English

Date: 27.–28.06.2011

Fee: Euro 150,- for forest managers and researchers  
Euro 40,- for students

The fee covers lunches, coffee breaks and all the didactic material that will be distributed during the training activity.

Deadline for registration: 12.06.2011

Bank account: Cassa di Risparmio - Sparkasse  
IBAN: IT67 P060 4511 6190 0000 0009 000  
BIC (SWIFT): CRBZIT2B107  
Subject: Training on Forest Simulation Models

### Please note:

Participation can only be confirmed by sending the registration form together with the payment receipt within the deadline by Fax or via E-Mail to the Faculty of Science and Technology.

### Accommodation:

A list of hotels, with whom the University has a special price agreement, will be sent to all the registered participants.

For further information please contact the Administration of the Faculty of Science and Technology:

T: +39 0471 017000

F: +39 0471 017009

E-Mail: [science.technology@unibz.it](mailto:science.technology@unibz.it)

Web: [www.unibz.it/sciencetechnology](http://www.unibz.it/sciencetechnology)

## REGISTRATION FORM

Surname: .....

Name: .....

Affiliation: .....

forest manager, researcher       student

Tel.: .....

E-Mail: .....

Address: .....

Postal code: .....

City: .....

State: .....



FREIE UNIVERSITÄT BOZEN  
LIBERA UNIVERSITÀ DI BOLZANO  
FREE UNIVERSITY OF BOZEN · BOLZANO



This Training School is organized in collaboration with:



**agroselviter**  
Dipartimento di Agronomia,  
Selvicoltura e Gestione del territorio



AUTONOME PROVINZ BOZEN - SÜDTIROL      PROVINCIA AUTONOMA DI BOLZANO - ALTO ADIGE  
Abteilung 32 - Forstwirtschaft      Ripartizione 32 - Foreste

## Training on Forest Simulation Models

**FasT | 27.–28.06.2011**  
Faculty of Science and Technology

## Organizers

### Faculty of Science and Technology

Free University of Bozen-Bolzano, Italy  
(Prof. Giustino Tonon, Dr. Francesco Giammarchi)

### Department Agroselviter

University of Turin, Italy  
(Prof. Renzo Motta, Dr. Giorgio Vacchiano )

### Autonomous Province of Bolzano-Bozen, Italy

Ufficio Pianificazione Forestale - Amt für Forstplanung  
(Dr. Fabio Maistrelli, Dr. Alessandro Andriolo)

Under the endorsement of:

**SISEF** (Società Italiana di Scienze ed Ecologia Forestale)

## Background and Objectives

The course, targeted to professionals, researchers and students in the forestry sector, aims at learning the basics of forest dynamics simulation models. These tools are widely used in Central Europe and the United States to visualize current stand conditions, simulate stand development for 20-100 years, and model the effect of silvicultural management, disturbances or other user-defined events. Hence, they effectively support planning and silvicultural decisions, and serve as visual aids in communicating management strategies to stakeholders. Course teachers will be scientists from Italian, American and German universities. The training will be based entirely on practical activities and hands-on exercises, carried out individually or in groups.

## Lecturers

Prof. Dr. Hans Pretzsch / Enno Uhl  
(Chair for Forest Growth and Yield Science, Technische Universität München Germany)

Prof. Dr. James Long  
(Professor of Forest Ecology and Silviculture, Utah State

University USA)

Dr. Giorgio Vacchiano  
(Department of Agriculture, Silviculture and Land Management, University of Turin, Italy)

Prof. Dr. Giustino Tonon  
(Professor of Forest ecology and Silviculture, University of Bolzano, Italy)

## Programme

The course will consist of two days of lectures and practical activities as follows:

### 1st day: Monday, June 27th:

- 9.00 Registration
- 9.30 Welcome addresses and introduction to modelling of forest dynamics (G. Tonon);
- 9.45 Objectives and structure of the course (G. Vacchiano)
- 10.00 Interactive activity: what sort of model output would be especially useful for me?
- 10.15 Introduction to FVS model (G. Vacchiano)
- 10.45 Interactive activity: what can this model do for my job?
- 10.45 Coffee break
- 11.00 FVS application in North America (J. Long)
- 11.30 Interactive activity: design a thinning using density management diagrams
- 11.45 Input data needed for FVS (G. Vacchiano)
- 12.00 Silvicultural prescriptions, carrying out FVS simulations (J. Long)
  - (a) introduce the stand
  - (b) describe our objectives
  - (c) characterize the objectives in terms of future stand structure
- 12.30 A look at the GUI - setting up and running the simulation (G. Vacchiano)
- 13.00 Lunch (University Canteen)
- 14.30 Summarize stand goal and management alternatives, run simulation (J. Long)
- 15.00 Interactive activity: interpret FVS output and customize

- your simulation
- 15.45 Interactive activity a further look at the output (i.e., generating tables and visualizing the stand)
- 16.15 Coffee break
- 16.45 Stand visualization system (G. Vacchiano)
- 17.15 Interactive activity: Visualize a stand (4-ha LTER plot)
- 17.45 Options of SVS: silvicultural treatments, tree designer (G. Vacchiano)
- 18.15 Interactive activity: Build a silvicultural report with customized stand visualization
- 18.45 End

### 2nd day: Tuesday, June 28th

- 9.00 The fire and fuel extension to FVS (J. Long)
  - (a) Extension overview
  - (b) Concepts of manipulating stand structure to influence future fire behaviour
  - (c) Objectives and evaluation criteria for the sample stand
- 10.20 Interactive activity: design and run simulation
- 10.50 Coffee break
- 11.10 Interactive activity: interpret FFE output and build tables, graphs for scenarios
- 11.50 The spatially explicit single tree growth simulator SILVA – concept, functions, application. (E. Uhl)
- 13.00 Lunch (University Canteen)
- 14.30 Interactive activity: exercises with SILVA, scenario analyses for evaluating the effect of site conditions, stand structure and management options on stand development (in groups)
- 16.30 Coffee break
- 17.00 Interactive activity Presentation of scenario results by participants
- 17.30 Wrap-up, discussion and next step (G. Vacchiano)
- 18.30 End