



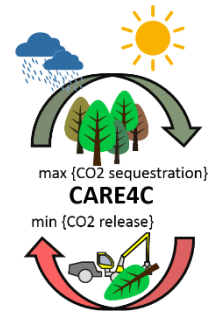
CARE4C

Carbon smart forestry under climate change

GA 778322

Training activities

14th of March 2018, Freising, Germany,



CARE4C aims at creating a holistic view on carbon balancing in forest management and to train young researchers in improving their knowledge in carbon smart forestry. For this purpose the project consortium offers several specific training activities open to students and postgraduate of forestry or related disciplines. Two of these training activities are scheduled in March 2018

- 1) Airborne Lidar and drone technology for forest inventory and management.
- 2) Models used in forestry for upscaling and prognosis, including models for risk and carbon accounting.

Venue:

Technische Universität München
Chair for Forest Growth and Yield – Lecture Hall 23
Hans-Carl-von-Carlowitz-Platz 2
85354 Freising, Germany

Wednesday, 14-03-2018

Coordinator: Ben du Toit, Stellenbosch University, South Africa

The objectives are

- (i) train postgraduates for a future career by developing their research competences in forest dynamics, carbon sequestration, carbon emission as well as risk strategies in forest management under climate change;
- (ii) integration of research results into models as tools for forest research and management including guidelines;
- (iii) workshop on multi-criterial optimization

The training will be conducted by specialized teachers. It aims at strengthening professional skills in forestry to meet the challenges of climate change of forest ecosystems. Knowledge of a number of related fields, namely forest ecology and silviculture, forest ecophysiology; dendrology, dendroecology, airborne LiDAR technology, forest allometry, process-based modelling and carbon cycling in forestry are important tools in climate change research on forest ecosystems. These skills are essential skills for future forest scientists that need to understand the effect of climate change on forest growth to arrive at possible mitigation measures.

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AGENDA

9:00 – 13:00: Section coordinator: H. Pretzsch (TUM)

Course “Airborne Lidar and drone technology for forest inventory and management”

9:00 – 9:15

Hans Pretzsch: Short introduction

9:15- 9:45

Felipe Bravo: Terrestrial Laser Scanning as a tool to insight on tree allometry and interactions in Mediterranean mixed forests

9:45 - 10:15

Martin Jacobs: Detection of tree characteristics based on terrestrial lidar (TLS) data

10:15 - 10:45

M. Ziesak, P. Dietsch: Drone generated data for skyline logging – which tree attributes are needed and which accuracy is possible

10:45 - 11:00

Short coffee break

11:00 - 11:30

Thomas Seifert: Pointcloud alignment: Combining LiDAR scans from different positions"

11:30 – 12:00

Rafael Alonso: “Airborne LiDAR in forest management: forest inventory, fuel models and scale change”

12:00 – 12:30

Dominik Bayer: Analyzing tree allometry in pure versus mixed species stands with TLidar

12:30 - 13:00

Jorge Olivar, Pablo Sabín: Assessment of forest-carbon sinks and promotion of compensation systems as tools for climate change mitigation

13:00 – 14:00

Lunch

14:00 - 14:45

Stephan Seifert: Demonstration of drone-based dendrometric measurements



14:45 – 18:00 Section coordinator: T. Rötzer (TUM) / C. Wellstein (FUB)

Course “Models used in forestry for upscaling and prognosis, including models for risk and carbon accounting”

14:45 – 15:00

Camilla Wellstein: Short introduction

15:00 - 15:30

Ben du Toit: The Hymo water balance model: (a) structure and application in South African plantation forests, (b) comparisons with other approaches to gauge water availability and its effect on stand productivity.

15:30 - 15:45

Short coffee break

15:45 - 16:15

Marta Pardos: A model-based analysis of climate change vulnerability under a multi-objective management: application of PICUS to Pinus stands in central Spain.

16:15 – 16:45

Stefan Friedrich, Thomas Knoke: Integrating risks in forest planning.

16:45 – 17:15

Kamil Bielak: The impact of different thinning scenarios on the stand structure, species composition, stability and growth: a computer-based analysis by means of Forest Simulator BWINPro.

17:15 - 18:00

Final overall discussion

Visitors are welcome!