



Sachverständigen-Arbeitsgemeinschaft

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3rd SAG Workshop

on Thursday, July 28th 2011 in Gauting, Germany

Vorstand:

Michael Schlag, Klaus Schöpe
Andreas Detter, Hermann Reinartz

Hans-Christof Spatz, Prof. emer. Univ. Freiburg:

Material Properties of Green Wood

Prof. Spatz was teaching at the University of Freiburg, Germany and authored several papers on the biomechanics of plants. In a joined scientific paper in cooperation with Prof. Karl Niklas, he recently has summarized and evaluated material properties of wood for more than 100 trees.

Prof. Spatz presented on numerous international conferences and workshops. His work has affected tree statics from early days on and fostered the understanding of the biomechanics of trees.

Furthermore, two recent research projects of HAWK Göttingen-Hildesheim and the Technical University of Dresden will be presented that deal with material properties of wood in the stem of oaks and in branches of poplar.

language spoken presentation in German, powerpoint slides in English, summarized translations and support for comments and questions available

time Thursday 28.7.2011
9:00 am till 5:00 pm

location Guesthouse of the "Institut für Jugendarbeit Gauting"
Germeringerstrasse 30, 82131 Gauting, Germany
Phone +49-(0)89-893233-0, Email info@institutgauting.de

Fees SAG-members 20.- € for lunch and drinks
non-members 225.- € plus VAT including lunch and drinks

rooms available at "Gästehaus im Institut für Jugendarbeit, Gauting"
Mrs. Gibson, +49-(0)89-893233-0, email gibson@institutgauting.de

registration <http://www.sag-baumstatik.org/index.php?file=seminare>

We intend to spend the evening with dinner in Gauting ! Please reserve time for this!

Preliminary program

- 9:00 – 9:15 registration and welcome
- 9:15 – 10:45 **Prof. Spatz: Basic Biomechanics**
- material properties of green wood
 - Test protocols, parameters affecting their results, variability
 - biomechanical significance of material properties
 - potential ways to determine the limit of elasticity and required adaptations for tree statics
 - discussion
- 10:45 – 11:00 coffee break
- 11:00 – 12:30 **Prof. Spatz: Micromechanics**
- micro- and nanostructure level properties of wood
 - fibre structures under tension and compression
 - energy absorption and damping in natural fibre tissue
 - nanostructural changes under plastic deformation
 - examples for applications
- 12:30 – 2:00 lunch break
- 2:00 – 2:45 **Stefan Düsterdiek (B.Sc.): Material Properties of Oak**
Comparison of results of pull tests and standard lab tests
- 2:45 – 3:00 coffee break
- 3:00 – 3:45 **Dipl. Ing. Andreas Köhler: Fracture of green poplar branches**
Bearing capacity under static and impact loads
- 3:45 – 5:00 Discussion and Synthesis

Further options for accomodation:

Gautinger Hof, Pippinstraße 1, 82131 Gauting, phone: (+49) (0) 89/8 93 25 80, E-Mail: gautingerhof@t-online.de (closets to fast train connection to Munich and workshop venue)

Hotel Bauer, Mr. Wörner, Unterbrunner Strasse 9, 82131 Gauting, phone: +49-(0)89-8501230, E-Mail: hotel.bauer@t-online.de (very close to fast train and workshop venue)

Woerl, Gasthof, Wörthseestr. 25, 82229 Seefeld, phone: +49-(0)8152-76445, www.paradieswinkel.de (very nice at lake shore)

Zum Sepperlwirt, Mailing, 82229 Seefeld, phone: +49-(0)8153-1200 (very nice at veteran oak avenue)

Gästehaus Königswiesen, Mrs. Minkhoff, Hauser Str. 13, 82131 Gauting, phone: +49-(0)89-8502703 (outside Gauting)

Forsthaus Mühlthal, Mühlthal 124, 82319 Starnberg, phone: +49-(0)8151 36090 (rather expensive, outside Gauting)