

Paper (Oral) Presentations

Friday, 2 December

Opening Ceremony

- 9:30 - 10:00 Opening address by Dr. Takao Itoh, Chairman of Organizing Committee
- A message to the conference from IAWA by Dr. Regis B. Miller
- Welcome address by Dr. H. Matsumoto, Vice-president of Kyoto University

Plenary Lecture 1

Chair: Tomoyuki Fujii

- 10:00 - 10:45 **Pieter Bass:** — Current trends in wood anatomy

Session 1 Anatomy of Woody Plants

Chair: Sri Nugroho Marsoem

- 10:45 - 11:00 **Tomoyuki Fujii** and Shuichi Noshiro: — Japanese Wood Database in FFPRI
- 11:00 - 11:15 **Arsenio B. Ella:** — Identlfy of guijo [*Shorea guiso* (blanco) *blume*]
- 11:15 - 11:30 **Nguyen Dinh Hung:** — Fast expertise for the timber of fabaceae and meliaceae in vietnam

11:30 - 13:00 Lunch

Chair: Sang-Jin Park

- 13:00 - 13:15 **Sangeeta Gupta:** — Wood anatomy research in India: — Past present & future
- 13:15 - 13:30 **Gregório Ceccantini,** Viviane Jono, Melina Sakiyama, Geraldo Zenid, Maria José Miranda: — Woods in the list of threatened species of State of São Paulo: — a new approach
- 13:30 - 13:45 **Maks Merela,** Igor Serša, Primož Oven: — Living tissues of trees imaged by three-dimensional spin-echo magnetic resonance microscopy

Session 2 Cambial Activity and Cell Wall Formation

Chair: Hisashi Abe

- 13:45 - 14:00 **Björn Sundberg** and Ewa Mellerowicz: — Engineering of wood structures
- 14:00 - 14:15 **Oliver Dünisch**, Uwe Schmitt, Matthias Fladung, Gerald Koch, Ryo Funada: — Endogenous and exogenous influences on the kinetics of xylem cell formation in trees
- 14:15 - 14:30 **Yoon Soo Kim**, Kwang Ho Lee, Jong Sik Kim, SooYoung Kim: — Anatomical characteristics of secondary xylem in tobacco plants overexpressed with abscisic acid (ABA) binding factor 2
- 14:30 - 14:45 **Sheng Du**, Mami Sugano, Miho Tsushima, Teruko Nakamura, Fukuju Yamamoto: — Endogenous auxin and ethylene in relation to gravity-induced reaction wood formation

Chair: Yoon Soo Kim

- 14:45 - 15:00 **R. Funada**, S. Nakaba, S. Begum, M. Shibagaki, Y. Oribe, T. Kubo: — Changes in stability of microtubules depending on cambial activity

15:00 - 15:30 Break

- 15:30 - 15:45 **Jožica Gričar**, Martin Zupancic, Katarina Cufar, Gerald Koch, Uwe Schmitt, Primož Oven: — Effect of local heating and cooling on cambial activity in stem of norway spruce
- 15:45 - 16:00 **Xin-Qiang He**, Kalima-N Koma Mwange, Hong-Wei Hou, Ke-Ming Cui: — Regeneration of the secondary vascular system as a novel system to investigate the physiological and molecular mechanisms of wood formation.

Session 3 Vascular Conducting Paths

Chair: Yasuhiro Utsumi

- 16:00 - 16:15 **John S. Sperry**, Jarmila Pittermann, Uwe G. Hacke: — The torus-margo pit valve makes conifers hydraulically competitive with angiosperms
- 16:15 - 16:30 **Peter Kitin**, Tomoyuki Fujii, Hisashi Abe, Katsuhiko Takata: — Exploring the three-dimensional structure of transport pathways in wood — what can different microscopy methods help?

Chair: Peter Kitin

- 16:30 - 16:45 **Yasuhiro Utsumi**, Shin Utsuzawa: — Nondestructive visualization of

water-stress induced cavitation in *Pinus thunbergii*

16:45 - 17:00 **Haruhiko Taneda**, Masaki Tateno: — Lateral movement of water in a xylem and water transport pattern in a whole shoot of kudzu vine, *Pueraria lobata* (Willd.) Ohwi

Session 6 Cell Wall Mechanics and Ultrastructure

Chair: Hiroyuki Yamamoto

17:00 - 17:15 **Lloyd Donaldson**: — Macrofibrils and microfibrils — The fractal organization of wood cell walls

17:15 - 17:30 **Robert Evans**: — Wood structure variability and measurement technology

Chair: Lloyd Donaldson

17:30 - 17:45 **H. Yamamoto**, K. Abe, Y. Arakawa, M. Yoshida, T. Almeras: — Biomechanics of tension wood gelatinous layer in some hardwood species

17:45 - 18:00 **Li Dagang**: — Plastic bending deformation and crack damage of wood cell wall

19:00 - 20:30 Poster Session

Saturday, 3 December

Plenary Lecture 2

Chair: Regis B. Miller

9:00 - 9:45 **Shoji Sudo**: — Trends in wood anatomy of Japan in the past 120 years

Session 8 Quality of Plantation Wood

Chair: Junji Matsumura

9:45 - 10:00 **Toshihiro Ona**: — Quality breeding by tree selection with high performance for paper recycling in *Eucalyptus globulus*

10:00 - 10:15 **Sri Nugroho Marsoem**: — Wood quality from the plantation forest in Indonesia

10:15 - 10:30 **Teera Veenin**, Somkid Siripatanadilok: — Growth and anatomical characteristics of *Eucalyptus camaldulensis* clones at Sakaew plantation, Thailand

10:30 - 10:45 **Mohd. Hamami Sahri**, H'ng Paik San, Edi Suhaimi Bakar: — Quality of plantation timbers in malaysia

Chair: Xiaomei Jiang

10:45 - 11:00 **Tuula Jaakkola**, Harri Mäkinen, Matti-P. Sarén, Pekka Saranpää: — Tracheid properties of Norway spruce grown at long-term thinning-fertilisation regimes

11:00 - 11:15 **Riikka Piispanen**, Pekka Saranpää: — Geographic variation and the effect of fertilisation on tracheid length and wood density of Norway spruce (*Picea abies* (L.) Karst.)

11:15 - 11:30 **Seyyed Ziaeddin Hosseini**: — Effect of Altitude on Biomass and Wood density of Brutian pine (*Pinus brutia* Mich.) in Kalaleh Region

11:30 - 11:45 **Tu Kim Nguyen**, Junji Matsumura, Kazuyuki Oda, Viet Cuong Nguyen: — Genetic variation of fibre length of *Acacia mangium*, *Acacia auriculiformis* and *Acacia* hybrids in vietnam

11:45 - 13:00 Lunch

13:00 - 15:00 Poster Session

15:00 - 15:30 Break

Session 4 Dendrochronology

Chair: Koh Yasue

15:30 - 15:45 **Fritz H. Schweingruber**: — Dendrochronological research: state of the art, progress and gaps

15:45 - 16:00 **Takumi Mitsutani**: — Application of dendrochronology to ancient structures

16:00 - 16:15 **Won-Kyu Park**, Yojung Kim, Sang-Hyo Han, M.G.L. Baillie: — Tree-ring dating of Bubju-temple using pine and oak chronologies

Chair: Fritz H. Schweingruber

16:15 - 16:30 **Takayuki Okochi**, Yasuharu Hoshino, Hiroyuki Fujii, Takumi Mitsutani:

— A new approach of the nondestructive tree-ring densitometry using micro-focus X-ray computerized tomography

16:30 - 16:45 **Hitoshi Yonenobu**, Motonari Ohyama, Hirotaka Oda: — Establishing a millennial-scale tree-ring chronology of Hinoki cypress for climate reconstruction in central Japan

16:45 - 17:00 **Gerhard Helle**: — Seasonal variations of stable isotopes in wood and leaves — Method for linking dendrochronology and ecophysiology

Session 5 Ecological and Phylogenetic Wood Anatomy

Chair: Mitsuo Suzuki

17:00 - 17:15 **Elisabeth A. Wheeler**: — Woods of the Fagales. Overview of diagnostic characters and the fossil record

17:15 - 17:30 **M. A. Afonin**: — Wood anatomical features of the cretaceous Pinaceae of north-western Kamchatka

17:30 - 17:45 **N.I. Blokhina**, M.A. Afonin, O.V. Bondarenko, H. Nishida: — Comparative wood anatomy of the extant and extinct *Keteleeria* (Pinaceae)

Chair: Elisabeth A. Wheeler

17:45 - 18:00 **Erik Smets**, Steven Jansen, Frederic Lens: — Phylogenetic value of wood features in the order Ericales. I An overview

18:00 - 18:15 **Frederic Lens**, Steven Jansen, Erik Smets: — Phylogenetic value of wood features in the order Ericales. II Case studies in balsaminoids, primuloids, Sapotaceae-Lecythidaceae and Theaceae *s.l.*

18:15 - 18:30 **Ye-Ming Cheng**, Xiao-Mei Jiang, Cheng-Sen Li, Yu-Fei Wang: — Late Pliocene wood flora from Yuanmou basin of Yunnan, China and its implications for vegetation and climate

19:00 - 21:00 Banquet

Sunday, 4 December

8:30 - 17:30 Excursion

Monday, 5 December

Session 7 Pathological Wood Anatomy and Wood Decay

Chair: Ryo Funada

- 9:00 - 9:15 **Adya Singh**, Yoon Soo Kim: — Bacterial strategies for degrading wood
- 9:15 - 9:30 Marina Milanello do amaral, **Gregório Ceccantini**: — The impact of the angiosperm endoparasite *Pilostyles ulei* in the wood of *Mimosa maguirei*
- 9:30 - 9:45 **Geoffrey Daniel**, Jindrich Volc: — Application of cryo-FE-SEM & TEM immuno-techniques to enhance our understanding of white and brown rot decay of lignocellulose

Chair: Adya Singh

- 9:45 - 10:00 **Keiko Kuroda**, Yu Ichihara, Yoshiyuki Kanbara, Takashi Inoue, Akira Ogawa: — Visualization of a host reaction in oak stems infected with a wilt pathogen, *Raffaelea quercivora*, by magnetic resonance imaging
- 10:00 - 10:15 **Primož Oven**, Maks Merela, Igor Serša: — Water distribution and anatomical changes in wounded tissues of beech (*Fagus sylvatica* L.)
- 10:15 - 10:30 **Fukuju Yamamoto**, Yusaku Murakami, Junichiro Maeta, Yutaka Yada, Jiro Kodani: — Roles of salicylic acid, jasmonic acid and ethylene in resin duct formation in the bark of *Cupressaceae* species in relation to *rohshi* pitch canker

Session 9 Wood in Art and Archaeology

Chair: Shuichi Noshiro

- 10:30 - 10:45 **Mechtild Mertz**, Takao Itoh: — Recent results in wood identification of Chinese Buddhist sculptures preserved in five European and one American museum
- 10:45 - 11:00 **Georges Métaillé**: — Contribution to the history of wood anatomy in China
- 11:00 - 11:15 **Sang-Jin PARK**: — Wood species of cultural properties in Korea

Chair: Mechtild Mertz

- 11:15 - 11:30 **Shuichi Noshiro**, Mitsuo Suzuki: — Earliest plant introduction and cultivation in Japan deduced from archaeological woods

11:30 - 13:00 Lunch

- 13:00 - 13:15 **Claire Alix:** — “Resonance wood” in the arctic? Traditional knowledge and selection of wood among the Yup’ik and Inupiaq Eskimo.
- 13:15 - 13:30 **Catherine Lavier:** — The national inventory of public libraries in France: archaeo-dendrometrical approaches on west-European book bindings from medieval and post-medieval periods.
- 13:30 - 13:45 **M. V. Asensi Amorós, Takao Itoh:** — Ancient Egyptian and Japanese wooden objects: aesthetic, technical and wood-anatomical aspects

Session 10 Wood Identification

Chair: Yuzo Sano

- 13:45 - 14:00 **Peter Gasson, Steven Jansen, Paula Rudall, Jennifer Evans, Jeanna Palmer-Wilson, Katie Parrish, Alberta M.W. Mennega:** — Wood evolution in the novel eudicot order Malpighiales
- 14:00 - 14:15 **Regis B. Miller:** — Wood identification with a hand lens

Chair: Peter Gasson

- 14:15 - 14:30 **Yuzou Sano:** — Microscopic wood identifications of four species of Haploxyton (*Pinus*, Pinaceae) native to northeast Asia
- 14:30 - 14:45 **Biao Pan, Haining Qi:** — Identification and analysis of Zheng He’s wooden ships excavated from a Ming-Dynasty shipyard in Nanjing
- 14:45 - 15:00 **Takeshi Furuno, Masami Watanabe:** — Investigation on species identification of buried forest in Sanbe, Ohda, Shimane, Japan

15:00 - 15:30 Break

Session 11 Wood Chemical Components

Chair: Pekka Saranpää

- 15:30 - 15:45 **Kazuhiko Fukushima:** — Heterogeneous distribution of lignin in tree xylem
- 15:45 - 16:00 **Xiaomei Jiang, Xiaoli Liu, Yafang Yin:** — Change of lignin content of *Eucalyptus urophylla* x *E. grandis* during lignification process by using SEM-EDAX coupled with bromazition method
- 16:00 - 16:15 **Dinesh Fernando, Jan Lidén, Geoffrey Daniel:** — The nature and behaviour/redistribution of extractives during birch kraft pulping;

microscopical histochemical approach

Chair: Kazuhiko Fukushima

- 16:15 - 16:30 **Pekka Saranpää**, Martti Venäläinen, Anni Harju, Aili Tuimala: — Decay resistance and extractive content of Siberian larch (*Larix sibirica* Lebed.) heartwood
- 16:30 - 16:45 P. K. Thulasidas, **K. M. Bhat**: — Chemical compounds of extractive content determining the brown-rot decay resistance of teak wood
- 16:45 - 17:00 **Lesley S. Rigg**, Linda Jones, Melissa Lenczewski, Steve Sutton, Matt Newville: — Distribution of metals in tree cores associated with ultramafic soils in New Caledonia.
- 17:00 - 17:15 **Kazumi Fukazawa**: — Microspectrophotometry

Closing Ceremony

- 17:15 - 17:30 Closing address by Dr. T. Itoh, Chairman of Organizing Committee