

# Programme

**IRG48 Scientific Conference on Wood Protection, 4-8 June 2017, Ghent, Belgium**

## Sunday 4 June

<b>15:30-18:30</b>	<b>Registration</b>
<b>18:30-21:00</b>	<b>Welcome reception</b> at 't Pand, convention centre UGent (address: Onderbergen 1)

## Monday 5 June

<i>Rafter</i>	<b>Opening Plenary Session</b>		
	<b>President:</b> Joris Van Acker <b>Vice-President:</b> Lone Ross Gobakken <b>Secretary-General:</b> Jöran Jermer		
08:30-08:40	<p align="center"><b>Opening Ceremony of the 48th Annual Conference</b></p> <p align="center"><b>Opening address by</b></p> <p align="center">Joris Van Acker, President, The International Research Group on Wood Protection Local Organizing Committee</p>		
08:40-09:00	<p align="center"><b>Plenary</b></p> <ol style="list-style-type: none"> <li>1. Opening of the meeting</li> <li>2. Approval of the agenda</li> <li>3. Membership issues <ul style="list-style-type: none"> <li>- Ratification of the election of new members since last year's Plenary</li> </ul> </li> <li>4. Announcement of Ron Cockcroft Award recipients</li> <li>5. Approval of the Annual Report 2016 and Auditors' report</li> <li>6. Granting discharge for the Executive Council and Secretary-General from the administration and accountancy for 2016</li> </ol>		<p align="right"><b>17-60413</b></p> <p align="right"><b>17-60412</b></p>

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<i><b>Refter</b></i>	<b>Scientific Main Session - keynotes</b> Chair: Lone Ross Gobakken	
09:00-09:45	<i>Local keynote</i> <b>Durability of energy efficient wooden buildings: a building physical point of view</b> <u>Staf Roels</u> , J Langmans	<b>17-40812</b>
09:45-10:30	<i>Keynote</i> <b>Service Life Forecasting and Planning – Why, and Concepts to do it</b> <u>Christer Sjöström</u>	<b>17-20625</b>
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	
<i><b>Refter</b></i>	<b>Scientific Main Session – section papers</b> Co-conveners: Rod Stirling, Miha Humar, Lehong Jin, Tripti Singh, Morten Klamer	
11:00-11:20	Section 1 - Biology <b>Novel wood treatments improve resistance to the wood-boring marine isopod <i>Limnoria quadripunctata</i></b> H Bowen, <u>M Montibus</u> , M Kutnik, S M Cragg	<b>17-10899</b>
11:20-11:40	Section 2 – Test methodology and assessment <b>Ensuring Quality of Treated Wood – Regulations, Certifications and Associative Background in the Field of Wood Protection in Europe</b> <u>M Kutnik</u> , M Klamer, E Melcher	<b>17-20626</b>
11:40-12:00	Section 3 – Wood protection chemicals <b>Encapsulated Active Ingredients for Wood Preservation</b> <u>E Oenem-Siakou</u> , R Möller, R Craciun, J Wittenzellner, J Habicht	<b>17-30717</b>
12:00-12:20	Section 4 – Processes and properties <b>Review on protection of timber bridges in Norway and other countries</b> K-C Mahnert, <u>U Hundhausen</u>	<b>17-40809</b>
<b>12:20-12:40</b>	Section 5 – Sustainability and Environment <b>A Green and Novel Technology for Recovering Copper and Wood from Treated Wood Waste – Part II: Optimization, copper metal recovery, and process design</b> <u>S Chen</u> , R Patel	<b>17-50326</b>
<b>12:40-13:30</b>	<b>Lunch</b>	

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<i>Refter</i>	<b>Working Party Session WP 1.2. Basidiomycetes</b> Conveners: Juliet Tang & Grant Kirker	
13:30-13:50	<b>Untreated and copper-treated wood soaked in sodium oxalate: Effects of decay by copper-tolerant and copper-sensitive fungi</b> <u>K M Ohno</u> , A B Bishell, C A Clausen	17-10888
<i>Refter</i>	<b>Working Party Session WP 3.3. Performance - lab &amp; field tests</b> Conveners: Ulrich Hundhausen & Boštjan Lesar	
13:50-14:10	<b>Field Performance of Refractory Species Treated with MCA</b> <u>R Stirling</u> , J K Ingram, P I Morris	17-30706
14:10-14:30	<b>Anti-fungal activity of rutin and rutin-metal complexes as wood protectants</b> <u>Li Yan</u> , J J Morrell, Jie Zhong, Xiuzhu Mao	17-30708
14:30-14:50	<b>Decay Resistance of MDF Manufactured with Huntite- Hydromagnesite and Zinc borate</b> U E Başer, <u>D Ustaömer</u> , Ö Özgenç	17-30710
14:50-15:00	<b>Bio-friendly wood protection systems - resistance to mould and blue-stain fungi</b> <u>L Ross Gobakken</u> , W Perdoch, B Mazela, P Kwaśniewska-Sip, G Cofta	17-30713
15:00-15:30	<b>Coffee / Tea</b>	
<i>Refter</i>	<b>Working Party Session WP 3.3. Performance - lab &amp; field tests (cont.)</b> Conveners: Ulrich Hundhausen & Boštjan Lesar	
15:30-15:50	<b>Weathering protection of European hardwoods through double modification</b> <u>G Behr</u> , A Gellerich, S Bollmus, H Militz	17-30715
15:50-16:10	<b>10 year Report on COST E37 Round Robin Tests – Comparison of results from laboratory and field tests</b> <u>M Westin</u> , E Conti, J Creemers, P-O Flæte, A Gellerich, I Irbe, M Klamer, E Melcher, R Moeller, L Nunes, S Palanti, L Reinprecht, E Suttie, H Viitanen	17-30718
16:10-16:30	<b>Questions</b>	
19:00-21:00	<b>President's RECEPTION</b> (upon invitation, at medieval castle Gravensteen)	

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<b>Rector Vermeylen</b>	<b>Working Party Session WP 4.4. Coatings, hydrophobic treatments and surface aspects</b> Conveners: Laurence Podgorski & Phil Evans	
13:30-13:50	<b>Effect of Particle Size on Wax Distribution in Paraffin Wax Emulsion Impregnated Wood</b> Wang Wang, <u>Jinzhen Cao</u> , Yiheng Huang	17-40779
13:50-14:10	<b>Black-stain Resistant Acrylic Latexes for Wood Coatings Applications</b> <u>G Boivin</u> , A M Ritcey, P I Morris, V Landry	17-40786
14:10-14:30	<b>Bacterial adhesion to selected wood finishes</b> <u>M Petrič</u> , D Kekec, J Žigon, K Godič Torkar, K Bohinc	17-40793
14:30-14:50	<b>Surface Protection of Wood with Metal Acetylacetonates</b> <u>Yuner Zhu</u> , P D Evans	17-40802
14:50-15:00	<b>Studying Weathering Performance of Coatings on Thermally Modified Wood</b> <u>M Nejad</u> , M Dadbin, P Cooper	17-40805
15:00-15:30	<b>Coffee / Tea</b>	
<b>Rector Vermeylen</b>	<b>Working Party Session WP 4.4. Coatings, hydrophobic treatments and surface aspects (cont.)</b> Conveners: Laurence Podgorski & Phil Evans	
15:30-15:50	<b>Organosilicon-based impregnation hydrophobers for wood</b> <u>J-P Lecomte</u> , J Van Acker, J Van den Bulcke, M Kutnik, M Montibus, S Salvati, S Derocker	17-40808
15:50-16:10	<b>Fungal growth on coated wood exposed outdoors: influence of coating pigmentation, cardinal direction and inclination of wood surfaces</b> <u>L Podgorski</u> , C Reynaud, M Montibus	17-10896
16:10-16:30	<b>The Comparison of Weathering Resistance of New Generation Wood-Coating Systems</b> Ö Özgenç, <u>S Durmaz</u>	17-40789
16:30-16:50	<b>Thermal stability of a wood protective biofinish and the influence of flame retardants on Aureobasidium cells</b> <u>S Rensink</u> , E A M Klein Rot, M F Sailer	17-30716
16:50-17:10	<b>Questions</b>	
19:00-21:00	<b>President's RECEPTION</b> (upon invitation, at medieval castle Gravensteen)	

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**Tuesday 6 June**

<i>Refter</i>	<b>Special session: Quality control of treated/modified wood</b> Conveners: Miha Humar & Ina Stephan	
08:30-08:50	<b>Case study: "Riesenbühlturn"</b> <u>E Melcher</u> , J Müller	17-20599
08:50-09:10	<b>Use of small volume cups in XRF analysis of treated wood retention</b> <u>R Stelzer</u> , A Taylor, P Lebow	17-20602
09:10-09:30	<b>Quality of the impregnated wood in the Slovenian hardware stores</b> <u>M Humar</u> , B Lesar, N Thaler, D Kržišnik, N Kregar, S Drnovšek	17-20606
09:30-09:50	<b>Consistency of performance of acetylated wood</b> <u>F Bongers</u> , J van Zetten	17-20608
09:50-10:10	<b>Overview of the treated wood quality control program in the United States with the recent challenges and advances</b> <u>L Jin</u>	17-20616
10:10-10:30	<b>Questions</b>	
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	
<i>Refter</i>	<b>Special session: Quality control of treated/modified wood (cont.)</b> Conveners: Miha Humar & Ina Stephan	
11:00-11:20	<b>New Standards for Approval of Modified Wood within the Nordic Wood Preservation Council (NWPC)</b> N Morsing, E Englund Thybring, <u>M Klamer</u>	17-20624
11:20-11:40	<b>Guidance on the European Biocidal Products Regulation Concerning Efficacy of Wood Preservatives</b> <u>I Stephan</u> , M Kutnik, E Conti, M Klamer, L Nunes, J Van Acker, R Plarre	17-20627
11:40-12:00	<b>Questions</b>	
<b>12:40-13:30</b>	<b>Lunch</b>	

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<i><b>Rafter</b></i>	<b>Special session: Timber Bridges</b> Conveners: Christian Brischke & David Lorenzo	
13:30-13:50	<b>Solid Timber Bridges – Latest Developments</b> F Miebach	<b>17-40788</b>
13:50-14:10	<b>Modelling of moisture content in timber bridge details</b> J Niklewski, <u>C Brischke</u> , E Frühwald Hansson, L Meyer-Veltrup	<b>17-20613</b>
14:10-14:30	<b>Evaluation of timber bridges with special consideration of detail design</b> <u>K Robbers</u> , J Fromm, E Melcher	<b>17-40781</b>
14:30-14:50	<b>Comparative Durability of Timber Bridges in the USA</b> J P Wacker, B K Brashaw	<b>17-20615</b>
14:50-15:00	<b>The potential and the challenges of acetylated wood in timber bridges - experiences from an ongoing project</b> <u>A Treu</u> , R Bredesen, F Bongers	<b>17-40792</b>
<b>15:00-15:30</b>	<b>Coffee / Tea</b>	
<i><b>Rafter</b></i>	<b>Special session: Timber Bridges (cont.)</b> Conveners: Christian Brischke & David Lorenzo	
15:30-15:50	<b>In-service performance of treated plywood bridge decks in Australia</b> <u>M A Powell</u>	<b>17-40794</b>
15:50-16:10	<b>Borate and Copper Naphthenate Dual Treatment of Bridge Timbers-Borate movement over time</b> <u>J-W Kim</u> , J D Lloyd	<b>17-40795</b>
16:10-16:30	<b>Dual Borate and Copper Naphthenate Treatment of Bridge Timbers: Potential Performance Enhancements and Cost Savings</b> <u>J Lloyd</u> , C Brischke, R Bennett, A Taylor	<b>17-40797</b>
16:30-16:50	<b>Performance of Norway spruce bridge in North-West Spain after 12 years exposure</b> <u>D Lorenzo</u> , J Fernández-Golfín, M Touza, M Guaita, A Lozano, J Benito	<b>17-40796</b>
16:50-17:10	<b>A summary of history and use of timber bridges in New Zealand</b> D Page, <u>T Singh</u>	<b>17-40801</b>

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17:10-17:30	<b>Prefabricated modular wooden bridges</b> L Jayanetti	17-40785
<b>Refter</b>	<b>Poster Session</b> Convener: Joris Van Acker	
<b>17:30-18:30</b>	<b>POSTER SESSION (IRGWP 17-60414) – 3 min presentations</b>	
P01	<b>Evaluation of Particulate Materials as a Physical Barrier against Termites under Floor of Experiment House</b> Y Yanase, Y Fujiwara, Y Fujii, T Mori, T Yoshimura, S Doi	17-10900
P02	<b>Exploration of waterlogged piles and wooden constructions of Riga Dome Cathedral</b> B Andersons, I Andersone, I Irbe, V Fridrihsone, R Lūsis	17-10901
P03	<b>Expression of endogenous glycoside hydrolases through metamorphosis of the shipworm <i>Lyrodus pedicellatus</i></b> C Slevin, S Cragg	
P04	<b>European Research Infrastructure for Circular Forest Bioeconomy (ERIFORE)</b> J Garcia Jaca, M Azpeitia, A Butron	
P05	<b>Multivariate modeling of mould growth in relation to extractives in dried Scots pine sapwood</b> O Karlsson, O Myronycheva, M Sehlstedt-Persson, M Öhman, D Sandberg	17-20629
P06	<b>Assessing the nutrient value of bio-based materials in relation to early fungal growth</b> L De Ligne, J Van den Bulcke, J Baetens, B De Baets, J Van Acker	17-20631
P07	<b>Testing of the resistance of acetylated wood against marine borers at three Italian sites</b> S Palanti, M Faimali, D Tagliapietra, M Andrenacci, M Anichini, M Sigovini	17-30719
P08	<b>Functional silicones used for wood protection: preliminary study</b> C Reynaud, F Marchal, F Pochon, M Kutnik	17-30720
P09	<b>Wood protection with nanoparticles: MgF<sub>2</sub> and CaF<sub>2</sub></b> S Usmani, J Schlischka, K Klutzny, Y de Laval, R Plarre, T Krah, I Stephan, T Hübert, E Kemnitz	
P10	<b>The nanoparticle-wood interaction – a fundamental study towards new materials for pressure impregnation of pine and beech wood</b> D Bossert, C Geers, A Finka	

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P11	<b>Depictions on Wood: Acceptation and Internalization of Wood, which is an intercultural interaction tool, as “A Valuable Object” (Wood is a Symbol of Civilization)</b> I Usta	<b>17-40776</b>
P12	<b>Controlled deposition of copper nanoparticles using wood inherent architecture as natural template</b> Youming Dong, Kaili Wang, Yutao Yan, Jianzhang Li, M Hughes, Shifeng Zhang	<b>17-40783</b>
P13	<b>Evaluation of coating applied in treated wood: experiences in Brazil</b> M Fernandez Natale, J M Vidal	<b>17-40814</b>
P14	<b>Radio frequency heating times for sterilization radiata pine solid piles</b> H Esquivel, V Sepúlveda, J Torres, L Salvo, R A Ananías	<b>17-40815</b>
P15	<b>Corrosion verification experiment of the screw driven into CLT</b> N Wada, H Ishiyama, S Yamamoto	<b>17-40816</b>
P16	<b>Water absorption characteristics of CLT</b> D Yokoi, H Ishiyama, Y Hirano	<b>17-40817</b>
P17	<b>Influence of sea water on timber and metal joints</b> T Nishimura, H Ishiyama, F Hirose, N Wada	<b>17-40818</b>
P18	<b>Aesthetic changes of coated thermally modified wood after artificial weathering</b> R Herrera, J Sandak, E Robles, J Labidi	<b>17-40819</b>
P19	<b>Markers of quality in self-bonded beech boards</b> C Cristescu, D Sandberg, O Karlsson	<b>17-40820</b>
P20	<b>UV-curable coatings developed for aesthetic and biological protection of wood outdoors</b> C Reynaud, A S Schuller, M Kutnik, L Podgorski	<b>17-40821</b>
<b>Poster session RECEPTION</b>		



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<b>Rector Vermeylen</b>	<b>Working Party Session WP 1.4 Natural Durability</b> Conveners: Nadine Amusant & Wolfram Scheiding	
08:30-08:50	<b>Effects of climatic factors and material properties on mould growth on untreated wooden claddings</b> <u>S Karlsen Lie</u> , G I Vestøl, O Høibø, L Ross Gobakken	<b>17-10884</b>
08:50-09:10	<b>Comparative studies on the durability of English oak (<i>Quercus robur</i> L.) under in-service, field and laboratory conditions</b> <u>C Brischke</u> , L Meyer-Veltrup, A Soetbeer, M Höpken, E Melcher, J Trautner	<b>17-10881</b>
09:10-09:30	<b>Assessing the natural durability for different tropical timber species using the mini-block test</b> <u>V Deklerck</u> , I De Windt, N Defoirdt, J Van den Bulcke, H Beeckman, E Espinoza, J Van Acker	<b>17-10886</b>
09:30-09:50	<b>Natural durability of <i>Sextonia rubra</i>, an Amazonian tree species: description and origin</b> <u>E Houël</u> , A Rodrigues, E Nicolini, O Ngwete, C Duplais, D Stien, N Amusant	<b>17-10887</b>
09:50-10:10	<b>A review on prediction methods of wood natural durability</b> <u>N Amusant</u> , C Flora, J Beauchène, E Houël, C Duplais	<b>17-10892</b>
10:10-10:30	<b>Comparison of 1H qNMR and NIR spectroscopic methods to predict heartwood decay resistance in <i>Dicorynia guianensis</i> Amsh</b> <u>C Flora</u> , G Frédéric, M-F Thévenon, Y Estevez, C Duplais, N Amusant	<b>17-20601</b>
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

<b>Rector Vermeylen</b>	<b>Working Party Session WP 1.4 Natural Durability (cont.)</b> Conveners: Nadine Amusant & Wolfram Scheiding	
11:00-11:20	<b>Chemical compositions and anti-termite activities of essential oils from Gabonese <i>Canarium schweinfurthii</i> Engl, <i>Dacryodes buettneri</i> Engl and <i>Aucoumea klaineana</i> Pierre wood resins</b> W Fiacre Bédounguindzi, P E Engonga, K Candelier, S Dumarçay, M Ludovic, M F Thévenon, P Gérardin	<b>17-10895</b>
11:20-11:40	<b>Interactions between fungal glutathione transferases and wood extractives</b> T Perrot, F Saiag, N Amusant, S Dumarçay, P Gérardin, M Morel-Rouhier, R Sormanil, <u>E Gelhaye</u>	<b>17-10894</b>

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<b>Rector Vermeylen</b>	<b>Working Party Session WP 2.2. Microbial test methodology</b> Conveners: Eric Gelhaye & Antje Gellerich	
11:40-12:00	<b>Laboratory test to determine the effect on durability of combining biobased building materials with timber in construction</b> <u>S F Curling</u> , G A Ormondroyd	<b>17-20604</b>
12:00-12:20	<b>Monitoring Diversity and Colonization Patterns of Wood-Inhabiting Fungi Using Field Stake Tests</b> <u>P Torres-Andrade</u> , J Cappellazzi, J J Morrell	<b>17-20614</b>
12:20-12:40	<b>NGS analysis of fungal OTUs in Aquilaria sp. from French Guyana, Cambodia, Laos and Thailand</b> <u>C Zaremski</u> , C Malandain, O Sibourg, C Andary, G Michaloud, M Ducouso, N Amusant, A Zaremski	<b>17-50328</b>
<b>12:40-13:30</b>	<b>Lunch</b>	

<b>Rector Vermeylen</b>	<b>Working Party Session WP 5.1. Environment &amp; 5.2 Sustainability</b> Conveners: Morten Klamer & Lars Tellnes	
13:30-13:50	<b>Analysis of Wood Industrial Pollutants Based on Emission Coefficients</b> <u>Chu Jie</u> , Ma Li, Zhangjing Chen	<b>17-50325</b>
13:50-14:10	<b>Uncertainty in life cycle assessment of preservative treated wood – copper and freshwater ecotoxicity</b> L G F Tellnes	<b>17-50331</b>
14:10-14:30	<b>Review of Leaching Experiments of CCA-Treated Wood and Wood Treated with Copper-based Alternatives</b> <u>A Jones</u> , J Marini, H Solo-Gabriele	<b>17-50330</b>
14:30-14:40	<b>How carbon stored in harvested wood products contribute in a greenhouse gas accounting perspective</b> <u>G Alfredsen</u> , G Sjøgaard	<b>17-50327</b>
14:40-15:00	<b>Young People's Perceptions about Wood</b> <u>I Usta</u>	<b>17-40777</b>
<b>15:00-15:30</b>	<b>Coffee / Tea</b>	

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<i>Rector Vermeylen</i>	<b>Working Party Session WP 4.2. Wood composites, WPCs and Engineered wood products</b> Conveners: Rebecca Ibach & Simon Curling	
15:30-15:50	<b>The use of new, aqueous chemical wood modifications to improve the durability of wood-plastic composites</b> <u>R E Ibach</u> , C M Clemons, G C Chen	<b>17-40787</b>
15:50-16:10	<b>Mechanical, Physical and Biological Properties of Sandwich Biocomposites Panels manufactured from Food Packaging Waste</b> A S O Mohareb, A H Hassanin, K Candelier, <u>M F Thévenon</u> , A Kilic, Z Candan	<b>17-40791</b>
16:10-16:30	<b>Physico-Mechanical and Biological Properties of Cement Bonded Particleboards from Nordmann Fir</b> H Yel, <u>U Aras</u> , H Kalaycioglu	<b>17-40798</b>
16:30-16:50	<b>Moisture behaviour and biological durability of high performance flax fibre reinforced composites</b> <u>N Defoirdt</u> , J Van den Bulcke, F Bensadoun, J Ivens, I Verpoest, J Van Acker	<b>17-40803</b>
16:50-17:10	<b>Hybrid green composites manufactured with glass fiber and jute fabric skin by VARTM process: Fungal, mold, and termite resistance tests</b> <u>S N Kartal</u> , E Terzi, M Muin, A H Hassanin, T Hamuoda, A Kilic, Z Candan	<b>17-40780</b>
17:10-17:30	<b>Questions</b>	
<i>Refter</i>	<b>Poster Session</b> Convener: Joris Van Acker	
<b>17:30-18:30</b>	<b>POSTER SESSION (IRGWP 17-60414) – 3 min presentations</b>	
	<b>Poster session RECEPTION</b>	

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**Wednesday 7 June**

<i>Refter</i>	<b>Working Party Session WP 2.1. Prediction of service life</b> Conveners: Linda Meyer-Veltrup & Jan Van den Bulcke	
08:30-08:50	<b>Assessment of the quality and lifetime of wooden pile foundations</b> <u>R W W M Klaassen</u> , A Jorissen, H Keijer	<b>17-10883</b>
08:50-09:10	<b>Design and performance prediction of timber structures based on a factorization approach</b> <u>L Meyer-Veltrup</u> , C Brischke	<b>17-20603</b>
09:10-09:30	<b>Bio-deterioration of Southern Pine Stakes at Geographically Different Testing Sites</b> <u>Jun Zhang</u> , J Horton	<b>17-20609</b>
09:30-09:50	<b>Redwood Durability in NZ – Can pure culture laboratory tests predict outdoor service life</b> <u>D O’Callahan</u> , C Chittenden, J van der Waals, D Meason, T Singh	<b>17-20610</b>
09:50-10:10	<b>Prediction of service life – does aesthetic matter?</b> <u>A Sandak</u> , J Sandak	<b>17-20618</b>
10:10-10:30	<b>Influence of Weathering on Moisture Performance of Wood</b> M Žlahtič-Zupanc, B Lesar, N Thaler, <u>M Humar</u>	<b>17-20619</b>
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

<i>Refter</i>	<b>Working Party Session WP 2.1. Prediction of service life (cont.)</b> Conveners: Linda Meyer-Veltrup & Jan Van den Bulcke	
11:00-11:20	<b>COST FP 1303 Cooperative Performance Test – Results after two years outdoor exposure</b> <u>B Lesar</u> , M Humar, C Brischke, L Meyer-Veltrup, D Jones, N Thaler, J M Abascal, G Alfredsen, B Brunnhuber, E Grodås, M Irle, J Kers, M Klamer, K-C Mahnert, E Melcher, S Palanti, M Noël, E Suttie, N Pfabigan, M Touza	<b>17-20620</b>
11:20-11:40	<b>Moisture performance of wood determined in laboratory and field trials</b> <u>D Kržišnik</u> , N Thaler, B Lesar, M Humar	<b>17-20621</b>

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11:40-12:00	<b>An experimental study of mould growth and wood decay in timber frame walls</b> <u>M Vanpachtenbeke</u> , J Van den Bulcke, I De Windt, J Langmans, S Roels, J Van Acker	<b>17-20623</b>
12:00-12:20	<b>Decay of wood in outdoor above ground applications: Preview of results on the effect of climate and species in Spain</b> J I Fernández-Golfin Seco, M Conde García, M R Díez Barra, M Conde García, L Acuña Rello, E Torres Álvarez, E Perea Alonso, <u>M T Troya</u>	<b>17-20600</b>
<b>12:20-12:50</b>	<b>Picnic lunch package</b>	
	<b>Excursion</b>	
13:00-23:00	Excursion to the 'Westhoek'	

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<b>Rector Vermeylen</b>	<b>Working Party Session WP 4.3. Treating processes &amp; treatability of timber</b> Conveners: Andreas Treu & Julien Trompetter	
08:30-08:50	<b>Permeability of <i>Eucalyptus</i> wood improved by microwave treatment</b> <u>Xia He</u> , Xianjun Li, Jie Xie, Xingyang Xiong	<b>17-40773</b>
08:50-09:10	<b>Treatability of beechwood railway sleepers with potential creosote substitutes</b> <u>N Pfabigan</u> , E Habla, R Gründlinger	<b>17-40790</b>
09:10-09:30	<b>The Effects of Pre-Microwave Treatment on Retention Levels And Some Mechanical Properties of Spruce Wood Treated with CCA</b> E D Gezer, <u>S Kuştaş</u> , S Durmaz	<b>17-40800</b>
09:30-09:50	<b>Penetration behaviour of different hydrophobic carrier substances for oily wood preservatives in Beech and Scots pine sapwood</b> <u>M Starck</u> , A Gellerich, H Militz	<b>17-40804</b>
09:50-10:10	<b>Questions</b>	
10:10-10:30		
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

<b>Rector Vermeylen</b>	<b>Working Party Session WP 1.6. Cultural artefact protection</b> Conveners: Wibke Unger & Sabrina Palanti	
11:00-11:20	<b>The First Description of Soft-rot Cavity in Waterlogged Archaeological Woods by a Japanese Wood Anatomist Prof. F. Onaka in 1935</b> Yoon Soo Kim, <u>K Yamamoto</u>	<b>17-10885</b>
11:20-11:40	<b>Underground timber constructions from the First World War are well preserved after 100 years</b> <u>J Van Acker</u> , I De Windt, K Haneca, H Beeckman, F Claeys, S Vandenbussche, J Vandewalle, N Robeyst, A Willems	<b>17-10897</b>

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11:40-12:00	<b>Oak maturation casks at the Rodenbach brewery, an industrial heritage of the Flemish Community requiring protective measures</b> <u>J Van Acker</u> , I De Windt, R Ghequire	<b>17-10898</b>
12:00-12:20	<b>Questions</b>	
<b>12:20-12:50</b>	<b>Picnic lunch package</b>	

	<b>Excursion</b>	
13:00-23:00	Excursion to the 'Westhoek'	

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**Thursday 8 June**

<i>Refter</i>	<b>Working Party Session WP 4.1. Chemical wood modification</b> Conveners: Erik Larnøy & Greeley Beck	
08:30-08:50	<b>Commercialisation of DMDHEU Modified Wood in Australasia</b> <u>B R Derham</u> , T Singh, H Militz	<b>17-40772</b>
08:50-09:10	<b>Dimensional Stability of Melamine Formaldehyde-Treated Southern Pine</b> <u>H M Barnes</u> , L S Sites, T S F A França, M G Sanders, F J N França	<b>17-40774</b>
09:10-09:30	<b>Accessibility of hydroxyl groups in anhydride modified wood as measured by deuterium exchange</b> <u>G Beck</u> , S Strohbusch, E Larnøy, H Militz, C Hill	<b>17-40784</b>
09:30-09:50	<b>Influence of hygro-thermal treatment temperature and duration on dimensional stabilisation of wood modified with poly(butylene succinate)</b> <u>C Grosse</u> , M Noël, L Rautkari, P Gérardin	<b>17-40813</b>
09:50-10:10	<b>Corrosion of fasteners in furfurylated wood – final report after 9 years exposure outdoors</b> J Jermer, B-L Andersson, <u>J Schalnat</u>	<b>17-40810</b>
10:10-10:30	<b>Questions</b>	
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

<i>Refter</i>	<b>Working Party Session WP 4.5. Thermal wood modification</b> Conveners: Phillippe Gérardin & Kevin Candelier	
11:00-11:20	<b>Is the ISPM 15 effective? Survival of Pine Wood Nematode under thermal treatments</b> L Robertson, M Conde, J C Cabrero, F Llinares, <u>M T Troya</u>	<b>17-40775</b>
11:20-11:40	<b>Decay resistance of beams made from thermally modified Scots pine and Norway spruce after 6 years' exposure in ground contact</b> S Metsä-Kortelainen, <u>H Viitanen</u>	<b>17-40806</b>



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11:40-12:00	<b>Decay resistance variability of European wood species thermally modified by industrial process</b> <u>K Candelier</u> , L Pignolet, S Lotte, A Guyot, E Cuny, B Bousseau, M-F Thévenon	<b>17-40807</b>
12:00-12:20	<b>Questions</b>	
12:20-12:40		
<b>12:40-13:30</b>	<b>Lunch</b>	

<b>Rector Vermeylen</b>	<b>Working Party Session WP 1.3. Insect biology and testing</b> Conveners: Teresa de Troya & Rachel A Arango	
08:30-08:50	<b>Evaluating the role of Actinobacteria in the gut of wood-feeding termites (<i>Reticulitermes</i> spp.)</b> <u>R A Arango</u> , F Green III, V W Yang, J R Lindholm, N P Chotlos, K F Raffa	<b>17-10880</b>
08:50-09:10	<b>On the Influence of Wood Destroying Fungi on the Feeding Intensity of Termites</b> <u>W Unger</u> , T L Woods	<b>17-10893</b>
09:10-09:30	<b>Analysis of hindgut bacterial phyla frequency and diversity in subterranean termites exposed to chitosan-treated wood</b> <u>O Raji</u> , J D Tang, T Telmadarrehei, D Jeremic	<b>17-10882</b>
09:30-09:50	<b>Durability Testing of a Cattail (<i>Typha</i> spp.) based Insulation Material against Termite Attack</b> M Dass, <u>W Unger</u> , T L Woods-	<b>17-10879</b>
09:50-10:10	<b>Nondestructive analysis of oviposition of the bamboo powderpost beetle <i>Dinoderus minutus</i> using acoustic emission and X-ray CT</b> <u>H Watanabe</u> , Y Yanase, Y Fujii	<b>17-10889</b>
10:10-10:30	<b>Genetic characterisation of the deathwatch beetle – Call for support</b> <u>M Höpken</u> , E Melcher, J Trautner	<b>17-10890</b>
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

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<b>Rector Vermeulen</b>	<b>Working Party Session WP 3.2. Organic preservatives (cont.)</b> Conveners: Hans Leithoff & Elke van Nieuwenhuijzen	
11:00-11:20	<b>Prevention of fungal damage of oil and date palm wood by organic acids</b> <u>M Bahmani</u> , O Schmidt	<b>17-10877</b>
11:20-11:40	<b>Liquefaction of woody waste: A novel approach in wood protection from CNSL based liquefied wood polyols</b> <u>A Kumar</u> , G B Nagarajappa, S Singh Chauhan	<b>17-30711</b>
11:40-12:00	<b>Efficacy of <i>Erythroleum suaveolens</i> (potrodom) and <i>Distemonanthus benthamianus</i> (bonsamdua) water extractives on the durability of five Ghanaian less used timber species of varying perviousness and retentiveness</b> <u>A Asamoah</u> , K Frimpong-Mensah, C Antwi-Boasiako	<b>17-30705</b>
12:00-12:20	<b>Questions</b>	
12:20-12:40		
<b>12:40-13:30</b>	<b>Lunch</b>	

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<b>Rector Blancquaert</b>	<b>Working Party Session WP 3.2. Organic preservatives</b> Conveners: Hans Leithoff & Elke van Nieuwenhuijzen	
08:30-08:50	<b>Activity of Two Strobilurin Fungicides Against Three Species of Decay Fungi in Agar Plate Tests</b> <u>J D Tang</u> , T Ciaramitaro, M Tomaso-Peterson, S V Diehl	<b>17-30704</b>
08:50-09:10	<b>The Protective Effect of Different Tree Bark Extractives against Decay Fungi</b> <u>Ö Özgenç</u> , S Durmaz	<b>17-30707</b>
09:10-09:30	<b>Copolymers of tannin extracts as wood protection agents</b> <u>G Tondi</u> , L Sommerauer, A Oberle, A Petutschnigg, M-F Thevenon	<b>17-30709</b>
09:30-09:50	<b>Decay Resistance of Scotch pine Wood Impregnated with <i>Agaricus campestris</i> Bio-Protective Extract</b> <u>S Yıldız</u> , Ü C Yıldız, A Yılmaz	<b>17 30714</b>
09:50-10:10	<b>Possibility of using lichen (<i>Usnea filipendula</i>) and mistletoe (<i>Viscum album</i> L.) extracts as potential natural wood preservative</b> Ü C Yıldız, C Kiliç, A Gürgen, S Yıldız	<b>17-30712</b>
<b>Rector Blancquaert</b>	<b>Working Party Session WP 2.3. Chemical/physical analysis</b> Conveners: Bruce Breedt & Anna Sandak	
10:10-10:30	<b>The sorption behaviour of wood</b> <u>C Hill</u>	<b>17-20605</b>
<b>10:30-11:00</b>	<b>Coffee / Tea</b>	

<b>Rector Blancquaert</b>	<b>Working Party Session WP 2.3. Chemical/physical analysis (cont.)</b> Conveners: Bruce Breedt & Anna Sandak	
11:00-11:20	<b>Monitoring of wood biodeterioration by infrared spectroscopy</b> E Meneses Oliveira, <u>A Florian da Costa</u> , J W Batista Braga	<b>17-20607</b>
11:20-11:40	<b>Three-Dimensional Digital Image Correlation of Strains in Profiled Wood Decking Exposed to Wetting &amp; Drying</b> J Mallet, S Kalyanasundaram, <u>P D Evans</u>	<b>17-20611</b>

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11:40-12:00	<b>Rapid detection of the Alaska yellow cedar, <i>Callitropsis nootkatensis</i> (Cupressaceae) extractives using Fourier transform infrared (FT-IR) spectroscopy</b> <u>S Lipeh</u> , J J Morrell	<b>17-20612</b>
12:00-12:20	<b>Evaluation of surface cracks on wood – physical assessment versus subjective sensation</b> <u>A Gellerich</u> , C Brischke, L Emmerich, L Meyer-Veltrup, P Kaudewitz	<b>17-20617</b>
12:20-12:40	<b>Development of Potentiometric Enzyme Biosensor for Detection of Permethrin Preservative in Treated Wood</b> M Nasir Mat Arip, <u>C Tan</u> , Gan Kee Seng	<b>17-20628</b>
<b>12:40-13:30</b>	<b>Lunch</b>	

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<i>Refter</i>	<b>Scientific Plenary Session – Discussion Forum</b> Session Chair: Lone Ross Gobakken	
13:30-15:00	<p><b><i>“Challenges linked to stricter regulations on biocides in the wood preservative industry and wood coating industry”</i></b></p> <p><b>The European Biocidal Regulation – history, structure and requirements for the wood preservative producers</b>            Morten Klamer</p> <p><b>Exterior paint for the future - Will there be any dry-film preservatives left?</b>            Hanne Jensen</p> <p><b>The European Biocides Regulation – Recent Experiences and Challenges for the Wood Preservation Industry</b>            Jörg Habicht</p> <p><b>Discussion</b></p>	<b>17-50332</b>
<b>15:00-15:30</b>	<b>Coffee / Tea</b>	
<i>Refter</i>	<b>Final Plenary Session</b> President: Joris Van Acker Vice-President: Lone Ross Gobakken Secretary-General: Jöran Jermer	
15:30-16:30	<p>7. Approval of membership fees for 2018</p> <p>8. Approval of the budgets for 2017 (forecast May 2017) and 2018</p> <p>9. Election of new officers            -Executive Council, Scientific Programme Committee, Information on EC appointments</p> <p>10. IRG Secretariat and Secretary-General</p> <p>11. Appointment of auditors</p> <p>12. Future venues            IRG 49: Johannesburg, South Africa 29 April-3 May 2018; IRG 50: Quebec City, Canada, 12-16 May 2019; IRG 51; IRG 52</p> <p>13. Any other business</p>	<b>17-60416</b> <b>17-60417</b>
<b>20:00-24:00</b>	<b>CONFERENCE BANQUET</b> (address: Oude Vismijn, Rekelingestraat 5)	