



Vereinigung zur Förderung des Deutschen Brandschutzes e. V.  
Technisch-Wissenschaftlicher Beirat

## Preliminary Programme 11th International Symposium on Fire Protection

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| <b>Tuesday June 8, 2010</b> | 10.00-10.15   | <b>Opening Ceromony - Words of welcome, Hans Jochen Blätte, President of German Fire Protection Association (vfdb)</b> |   |
|                             | 10:15-11:00   | <b><u>Invited Lecture</u></b>  |   |
|                             |   | Topic: <b>High-Rise-Storage, Sprinkler versus Water Mist - State of the Art</b>  |   |
|                             |   | Speaker: <b>Michael Rost, Martin Spier, Magdeburg-Stendal University of Applied Sciences, Germany</b>                  |   |
|                             |   | <b><u>Session 1</u></b>  | <b><u>Session 2</u></b>   |
|                             |   | Topic: <b>Fire Safety Engineering</b>  | Topic: <b>Hazard assessment</b>   |
|                             |   | Session Chairman: <b>Peter Schaumann, Leibniz Universität Hannover, Germany</b>  | Session Chairman: <b>Ulrich Krause, Federal Institute for Materials Research and Testing, Berlin, Germany</b> |
|                             | 11:00-11:30   | <b><i>Lecture 1.1</i></b>  | <b><i>Lecture 2.1</i></b>   |
|                             | <b>Fire simulation models of natural fire impact on overhead glass constructions</b>  | <b>Sustainable Fire Prevention (Towards A Sustainable Green Fire Preventive Approach)</b>                              |   |
|                             | <b>Yvonne Giese, University of the German Federal Armed Forces, Munich, Germany</b>   | <b>Bassem Gamil Faragalla, Abu Dhabi Civill Defence, U.A.E</b>   |   |
| 11:30-12:00                 | <b><i>Lecture 1.2</i></b>   | <b><i>Lecture 2.2</i></b>  |   |
|                             | <b>A constitutive model for the use of Finite Element Method in structural fire design. Formulation, benefit and limits shown on a numerical steelmodel based on Eurocode 3</b> | <b>Applicability of FMEA as preliminary fire riskanalysis for offshore wind energy plants</b>                          |   |
|                             | <b>Sebastian Hauswaldt, Manfred Korzen, Federal Institute for Materials Research and Testing, Berlin, Germany</b>   | <b>Uli Barth, Birte Grashorn, University of Wuppertal, Germany</b>   |   |
| 12:00-12:30                 | <b><i>Lecture 1.3</i></b>   | <b><i>Lecture 2.3</i></b>  |   |
|                             | <b>Structure Fire resistance: a joint approach between modelling and full scale testing (substructuring system)</b>   | <b>Peak Pressure and Retention Optimization in Clean Agent</b>   |   |
|                             | <b>Serge Rimlinger, F. Robert, C. Collignon, Centre d'Etudes et de Recherche de l'Industrie du Béton, Epernon, France</b>   | <b>Colin Genge, Retrotec Energy Innovations Ltd., Vancouver, Canada</b>  |   |
| 12:30-13:30                 | <b>Lunch</b>  |  |   |

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| <b>Tuesday June 8, 2010</b> |                     | <b><u>Session 3</u></b>  | <b><u>Session 4</u></b>   |
|                             |                     | Topic: <b>Fire fighting</b><br>Session <b>Reinhard Ries</b> ,<br>Chairman: Fire Department Frankfurt am Main, Germany  | Topic: <b>Toxicity</b><br>Session <b>Richard Hull</b> ,<br>Chairman: University of Central Lancashire, United Kingdom   |
|                             | 13:30-14:00         | <b><i>Lecture 3.1</i></b><br><b>Image Quality Performance Testing of Fire Service Thermal Imaging Cameras</b><br><b>Andrew Lock, Francine Amon, Nelson Bryner</b> ,<br>National Institute of Standards and Technology,<br>Gaithersburg, USA  | <b><i>Lecture 4.1</i></b><br><b>Toxic-Hazard Prediction: Possibilities and Limitations of Toxicity Modelling</b><br><b>Kathrin Grewolls</b> , Ingenieurbüro für Brandschutz, Ulm, Germany<br><b>Richard Hull</b> , University of Central Lancashire, United Kingdom |
|                             | 14:00-14:30         | <b><i>Lecture 3.2</i></b><br><b>Risk analysis methodology for predicting fire service intervention</b><br><b>Simon K. Davis</b> ,<br>New Zealand Fire Service, Auckland, New Zealand   | <b><i>Lecture 4.2</i></b><br><b>Bench-Scale Generation and Characterisation of Toxic Fire Effluents for Evacuation Analysis</b><br><b>Richard Hull, Anna Stec</b> ,<br>University of Central Lancashire, United Kingdom   |
|                             | 14:30-15:00         | <b><i>Lecture 3.3</i></b><br><b>Study of the efficiency of the fire extinguishing systems used by fire fighters on the underventilated fires with 3D Firefighting and other application techniques</b><br><b>D. You<sup>1</sup>, P. Jourda<sup>1</sup>, F. Gaviot-Blanc<sup>2</sup>, A. Joachim<sup>3</sup>, G. Mitanchez<sup>4</sup>, JP Vantelon<sup>5</sup></b><br><sup>1</sup> CEA, France, <sup>2</sup> IFP, France, <sup>3</sup> ASN, France, <sup>4</sup> GIMAEX, France, <sup>5</sup> CNRS, France | <b><i>Lecture 4.3</i></b><br><b>New Aspects and Developments in the Field of Air Sampling Smoke Detection</b><br><br><b>Peter Stahl</b> , Wagner Schweiz AG, Wallisellen, Switzerland   |
|                             | 15:00-15:30         | <b><i>Lecture 3.4</i></b><br><b>Operating conditions of fire brigades in tunnel</b><br><br><b>Kathrin Grewolls</b> , Ingenieurbüro für Brandschutz, Ulm, Germany<br><b>Ingo Bullerjahn</b> , BTE-Consult GmbH, Boetzingen, Germany   | <b><i>Lecture 4.4</i></b><br><b>Chemical analysis of smoke of burning upholstered bus seats</b><br><br><b>Simone Krüger, Anja Hofmann, Ulrich Krause</b> ,<br>Federal Institute for Materials Research and Testing, Berlin, Germany                                 |
| 15:30-16:00                 | <b>Coffee break</b> |  |   |

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| <b>Tuesday June 8, 2010</b> |                          | <b><u>Session 5</u></b>  | <b><u>Session 6</u></b>  |
|                             |                          | Topic: <b>Evacuation</b><br>Session <b>N.N.</b><br>Chairman:   | Topic: <b>Fire Safety Engineering</b><br>Session <b>Dietmar Hosser,</b><br>Chairman:     Braunschweig University of Technology,<br>Germany   |
|                             | 16:00-16:30              | <b><i>Lecture 5.1</i></b><br><b>Risk Analysis with Evacuation Software – How Should We Interpret Calculated Results?</b><br><b>Christian Rogsch, Wolfram Klingsch,</b><br>University of Wuppertal, Germany   | <b><i>Lecture 6.1</i></b><br><b>vfdb Guidelines “Methods of Fire Safety Engineering”</b><br><br><b>Dietmar Hosser,</b><br>Braunschweig University of Technology, Germany   |
|                             | 16:30-17:00              | <b><i>Lecture 5.2</i></b><br><b>Consideration of multivariate influence factors in evacuation simulations</b><br><b>Alexander Bernhardt, Ulrich Hauptmanns,</b><br>University of Magdeburg, Germany  | <b><i>Lecture 6.2</i></b><br><b>A holistic, risk-informed safety concept for structural fire protection based on the Eurocodes</b><br><b>Cornelius Albrecht, Dietmar Hosser,</b><br>Braunschweig University of Technology, Germany<br><b>Astrid Weilert,</b> hhpberlin Ingenieure für Brandschutz GmbH,<br>Berlin, Germany |
|                             | 17:00-17:30              | <b><i>Lecture 5.3</i></b><br><b>Assessment of Occupant Safety in Places of Assembly</b><br><br><b>Burkhard Forell,</b> Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH, Cologne, Germany<br><b>Dietmar Hosser,</b><br>Braunschweig University of Technology, Germany | <b><i>Lecture 6.3</i></b><br><b>Consideration of active fire protection measures in performance-based fire safety concepts</b><br><b>Christoph Klinzmann,</b><br>hhpberlin Ingenieure für Brandschutz GmbH, Berlin, Germany<br><b>Dietmar Hosser,</b><br>Braunschweig University of Technology, Germany                    |
| 19:00                       | <b>Evening reception</b> |  |  |

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| <b>Wednesday June 9, 2010</b> | 09:00-09:45  | <b><u>Invited Lecture</u></b>  |  |
|                               |  | Thema: <b>Safety concept for structural fire design - application and validation in steel and composite construction</b>   |  |
|                               |  | Referent : <b>Peter Schaumann, Jörg Sothmann, Leibniz Universität Hannover, Germany</b><br><b>Cornelius Albrecht, Braunschweig University of Technology, Germany</b> |  |
|                               |  | <b><u>Session 7</u></b>  | <b><u>Session 8</u></b>  |
|                               |  | Topic: <b>Fire Protection Concepts</b><br>Session <b>Burkhard Forell, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH, Germany</b><br>Chairman:            | Topic: <b>Fire Simulation</b><br>Session <b>Christian Knaust, Federal Institute for Materials Research and Testing, Berlin, Germany</b><br>Chairman: |
| 09:45-10:15                   | <b><i>Lecture 7.1</i></b>  | <b><i>Lecture 8.1</i></b>  |  |
|                               | <b>Real fire testings as verification of existing fire protection constructions</b>    | <b>ScaRC: An optimized parallelization concept for the FDS-pressure equation based on adaptive mesh refinement techniques</b>  |  |
|                               | <b>Tim Mattausch,</b><br>DMT GmbH & Co. KG, Dortmund, Germany                          | <b>Susanne Kilian,</b><br>hhpberlin, Ingenieure für Brandschutz GmbH, Berlin, Germany  |  |
| 10:15-10:45                   | <b><i>Lecture 7.2</i></b>  | <b><i>Lecture 8.2</i></b>  |  |
|                               | <b>Analysis of position of fire and explosion protection in the republic of Serbia</b> | <b>Fast and correct computation</b><br><b>A comprehensive test concept to proof the new FDS-ScaRC technique</b>  |  |
|                               | <b>Snezana Zivkovic,</b><br>University Nis, Serbia                                     | <b>Matthias Münch,</b><br>Freie Universität Berlin, Germany  |  |
| 10:45-11:15                   | <b>Coffee Break</b>  |  |  |

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| <b>Wednesday June 9, 2010</b> |  | <b><u>Session 9</u></b>   | <b><u>Session 10</u></b>  |
|                               |  | Topic: <b>Protective equipment</b>  | Topic: <b>Fire Simulation</b>   |
|                               |  | Session Chairman: <b>Michael Rost</b> ,<br>Magdeburg-Stendal University of Applied Sciences, Magdeburg, Germany   | Session Chairman: <b>Reinhard Grabski</b> ,<br>Institute of Fire Department Sachsen-Anhalt, Heyrothsberge, Germany  |
|                               | 11:15-11:45  | <b><i>Lecture 9.1</i></b><br><b>Firefighting and Rescue Concept for Wildfire, Industrial or Airport scenarios</b><br><b>Michael Henrichs</b> ,<br>Airmatic-RED Division, Hemer, Germany   | <b><i>Lecture 10.1</i></b><br><b>Cable Heat Release, Ignition, and Spread in Tray Installations during Fire - The CHRISTIFIRE Project</b><br><b>Kevin McGrattan, Andrew Lock, Nathan Marsh, Marc Nyden</b> , Building and Fire Research Laboratory National Institute of Standards and Technology Gaithersburg, Maryland, USA<br><b>Jason Dreisbach</b> , Office of Nuclear Regulatory Research U.S. Nuclear Regulatory Commission Washington DC, USA |
|                               | 11:45-12:15  | <b><i>Lecture 9.2</i></b><br><b>Development of a Test Apparatus for Determination of the False-Alarm-Susceptibility of Smoke Detectors</b><br><b>Thorsten Schultze, Wolfgang Krüll, Ingolf Willms</b> ,<br>University Duisburg-Essen, Germany<br><b>André Freiling</b> , Airbus Operations GmbH, Hamburg, Germany | <b><i>Lecture 10.2</i></b><br><b>Modeling Fire Scenarios in Buildings with CFD</b><br><b>Christian Knaust</b> , Federal Institute for Materials Research and Testing, Berlin, Germany   |
| 12:15-12:45                   | <b><i>Lecture 9.3</i></b><br><b>The Hollow Glass Ball Technology</b><br><b>Günter Knopf</b> , Ingenieurbüro für Anlagentechnischen Brandschutz, Heidensee, Germany | <b><i>Lecture 10.3</i></b><br><b>Numerical simulation of water mist fire plume interaction by using FDS</b><br><b>Hemdan Shalaby, Klaus-Jürgen Kohl, Reinhard Grabski</b> ,<br>Institute of Fire Department Sachsen-Anhalt, Heyrothsberge, Germany  |   |
| 12:45-14:00                   | <b>Lunch</b>   |   |   |

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| <b>Wednesday June 9, 2010</b> |             | <b><u>Session 11</u></b>  | <b><u>Session 12</u></b>   |
|                               |             | Topic: <b>Protective equipment</b><br>Session <b>N.N.</b><br>Chairman:  | Topic: <b>Fire Simulation</b><br>Session <b>Anja Hofmann,</b><br>Chairman: Federal Institute for Materials Research and Testing,<br>Berlin, Germany  |
|                               | 14:00–14:30 | <b>Lecture 11.1</b><br><b>Vision Systems for Geo-referenced Wildfire Detection</b><br><b>Gavin Hough,</b><br>EVS Systems PTY Ltd, Durban, South Africa  | <b>Lecture 12.1</b><br><b>Self ignition of biomass – a statistical study</b><br><b>Rasmus S. Petersen,</b> Lyngby-Taarbæk Fire brigade, Denmark<br><b>Anne S. Dederichs,</b> Technical University of Denmark, Kgs. Lyngby                                  |
|                               | 14:30-15:00 | <b>Lecture 11.2</b><br><b>FM Global’s New Data Sheet 2-0, Installation Guidelines for Automatic Sprinklers, and Proposed Changes to Data Sheet 8-9, Storage of Class 1, 2, 3, 4 and Plastic Commodities</b><br><b>Weston C. Baker Jr.,</b><br>FM Global Engineering Standards, Norwood, USA   | <b>Lecture 12.2</b><br><b>Numerical Investigation of a real fire case with downward fire spread</b><br><br><b>Florian Kempel, Anja Hofmann, Bernhard Schartel, Ulrich Krause,</b><br>Federal Institute for Materials Research and Testing, Berlin, Germany |
|                               | 15:00-15:15 | <b>Coffee Break</b>   |  |
|                               | 15:15–15:45 | <b>Lecture 11.3</b><br><b>Fire Hazards of Multi-Layer Paint</b><br><b>Jennifer Rhodes, Richard Hull, Anna Stec,</b><br>University of Central Lancashire, United Kingdom   | <b>Lecture 12.3</b><br><b>Detailed Measurements in Underventilated Compartment Fires</b><br><b>Andrew Lock, Matthew Bundy, Rik Johnsson, Cheolhong Hwang, Anthony Hamins,</b> National Institute of Standards and Technology, Gaithersburg, USA            |
|                               | 15:45-16:15 | <b>Lecture 11.4</b><br><b>Complex Estimation of Reliability of intumescent fireproof covers for increase of fire resistance limits for building constructions</b><br><b>Tatiana Eremina,</b> State Fire Service Academy of Emergency Control Ministry of Russia, St. Petersburg, Russia<br><b>Marina Gravit,</b> Scientific Innovation Center of Construction and Fire Safety Ltd, St. Petersburg, Russia | <b>Lecture 12.4</b><br><b>Fire and Evacuation Simulations in Alternative Ship Design</b><br><br><b>Daniel Povel,</b><br>Germanischer Lloyd, Hamburg, Germany   |
|                               | 16:15–16:45 | <b>Lecture 11.5</b><br><b>The latin american problem</b><br><b>Jaime A. Moncada,</b> International Fire Safety Consulting, Highland, USA<br><b>Jaime Moncada-Pérez,</b> Pirotec Ltd, Bogota, Colombia   | <b>Lecture 12.5</b><br><b>Conduction-diffusion problems – „exotics“ in fire simulations?</b><br><b>Ulrich Krause,</b> Federal Institute for Materials Research and Testing, Berlin, Germany  |
|                               | 16:00-16:15 | <b>Closing remarks</b>  |  |