

# International Conference on Heavy Vehicles Paris 2008

incorporating

## Heavy Vehicle Transport Technology (HVT 10) and Weigh-In-Motion (ICWIM 5)



## Programme

May 19-22, 2008  
Paris Marne-la-Vallée, France

## Institutional Sponsors



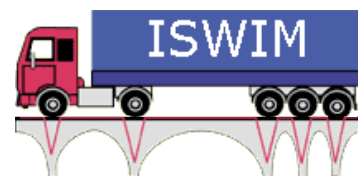
U.S. Department of Transportation  
Federal Highway Administration



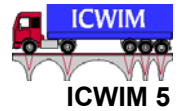
Ecole Nationale des Ponts et Chaussées



IFRTT : <http://www.road-transport-technology.org>



ISWIM : <http://iswim.free.fr>



## Sunday, May 18, 2008

- 15:00 – 18:30            Registration / *Enregistrement*
- 16:00 – 17:00            IFRTT Board Meeting (*only for board members*)  
17:00 – 18:00            ISWIM Board Meeting (*only for board members*)
- 18:30 – 21:00            Welcome Cocktail / *Cocktail de bienvenue***

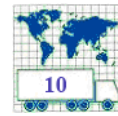
## Monday, May 19, 2008

- 8:00 - 9:00            Registration / *Enregistrement*

### Opening Session / *Session d'ouverture* 9:00 – 11:00 (amphi Cauchy)

- 9:00 – 9:20            **Ouverture/Opening : Daniel Bursaux**  
Directeur Général de la Mer et des Transports, Ministère de l'Ecologie, de l'Energie, du Développement durable et de l'Aménagement du territoire  
*General Director of the Sea and Transport Directorate-General, Ministry of Ecology, Energy, Sustainable Development and Land Planning*
- 9:20 – 9:35            **Bienvenue/Welcome : Philippe Courtier**  
Directeur Général de l'Ecole Nationale des Ponts et Chaussées  
*General Director of the Ecole Nationale des Ponts et Chaussées*
- 9:35 – 9:50            **Avant-propos/Foreword : Jacques Roudier**  
Directeur Général du Laboratoire Central des Ponts et Chaussées  
*General Director of the Laboratoire Central des Ponts et Chaussées*
- 9:50 – 10:10          **Introduction : Bernard Jacob**, Président de la conférence / *Conference chairman*
- 10:10 – 10:20          **IFRTT Presentation / Présentation du IFRTT : Anders Lundström**, IFRTT chairman
- 10:20 – 10:30          **ISWIM Presentation / Présentation de ISWIM : Eugene O'Brien**, ISWIM chairman
- 10:30 – 10:40          **PIARC Presentation / Présentation de l'AIPCR: Franck Charmaison**, PIARC  
Deputy General Secretary / *Secrétaire général adjoint de l'AIPCR*
- 10:40 – 11:00          **Major Sponsors Presentations / Présentation des sponsors majeurs**
- Michelin, Christophe Laprais, Director for Standards and Rules
  - Scania, Anders Lundström, Head of Feasibility Studies Vehicle Definition
  - Kistler AG, Philippe Voiriot, Président de Kistler France
  - Sterela, Jean-Paul Dumas, Président

### Coffee break



## Plenary Session I / Session plénière I

11:30 – 12:30 (amphi Cauchy)

Chair: **Eugene O'Brien**, University College Dublin

- 11:30 – 11:45 **John Berry**, European Commission, DG/TREN  
*The Effect of adapting the Rules on the Weights and Dimensions of HCV within Directive 96/53/EC regarding their Ability to match the Needs of advanced Logistics and sustainable Mobility*
- 11:45 – 12:00 **Robert Clarke**, American Truck Manufacturers Association (to be presented by P. Sweatman)  
*Heavy Vehicle Issues in North America*
- 12:00 – 12:15 **Hans van Loo**, Kalibra, Bernard Jacob, LCPC  
*Weigh-in-Motion for Enforcement in Europe*
- 12:15 – 12:30 *Discussion*

### Lunch

## OECD / JTRC Session

13:30 – 15:15 (amphi Cauchy)

Chair: **Jørgen Christensen**, OECD/JTRC, chair of the OECD/JTRC Working Group on Heavy Vehicle: Regulatory, Operational and Productivity Improvements

*Dialogue meeting between the JTRC Working Group and invited professionals from the road transport community attending the HVPari2008 International Conference*

## WIM Session 1

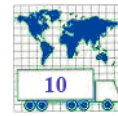
14:45 – 16:30 (amphi Navier)

### Traffic and Freight Management, Road Safety and Pricing, using WIM networks

Chair: **Eugene O'Brien**, UCD

Co-chair: Helio Goltsman, Federal University of Santa Catarina

- 14:45 – 15:00 **Stanislav Urgela**, Rudolf Janotka  
*Measure in Motion Vehicle Detector on Motorways, Expressways and Roads of Slovakia*
- 15:00 – 15:15 **Tatsuya Ojio**, Kentaro Yamada  
*Environmental Noise Measurement in Combination with B-WIM*
- 15:15 – 15:30 **Lily Poulidakos**, Kurt Heutschi, Martin Ulises Arraigada, Peter Anderegg, Manfred Partl  
*Comparison of WIM, Noise, Vibration Data from Heavy Vehicles*
- 15:30 – 15:45 **Jesus Leal**  
*Weigh-in-motion Measurements in the National Road Network of Spain during the 2000-2003 Period. Data Collection Procedure and main Results*



15:45 – 16:00 **Helio Goltsman**, Marcio Paiva, Amir Mattar Valente, Fernando Pantoja  
*Test of WIM Sensors and Systems under Brazilian Conditions*

16:00 – 16:30 *Discussion*

### HVTT Session 1

15:15 – 16:30 (amphi Cauchy)

#### Performance Based Standards

Chair: **Peter Sweatman**, University of Michigan    Co-chair: Klaus-Peter Glaeser, BAST

15:15 – 15:35 **Paul Nordengen**, Hans Prem, Luan Mai,  
*An Initiative to introduce a Performance-Based Standards (PBS) Approach for Heavy Vehicle Design and Operations in South Africa*

15:35 – 15:55 **John Billing**, Jeff Patten  
*A Discussion of the High-speed Offtracking Performance Standard*

15:55 – 16:15 **Mark Johnston**, Les Bruzsa  
*Development of an Innovative Steerable Double Extendable Trailer under Performance Based Standards (PBS)*

16:15 – 16:30 *Discussion*

*Coffee break*

### Panel Discussion I / *Table ronde I* (HVTT)

16:55 – 18:10 (amphi Cauchy)

#### Road Freight Productivity, the Weights and Dimensions Issue

*Productivité du transport de marchandises, la question des poids et dimensions*

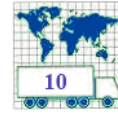
Chair: **Anders Lundström**, Scania

Panelists: John Berry (DG/TREN, EC), Jørgen Christensen (OECD/JTRC, DK), Les Bruzsa (Queensland Transport, AU), Bernard Favre (Volvo, FR), Jacques Marmy (IRU, CH), John Woodrooffe (UMTRI, US).

### Demos and Games / *Démonstrations et jeux*

18:10 – 19:15

19:15 - 21:15: **Ice-breaking Buffet / *Buffet convivial***, Ecole Nationale des Ponts et Chaussées



**Tuesday, May 20, 2008**

**Plenary Session II / Session plénière II**

**9:00 – 10:15 (amphi Cauchy)**

Chair: **Bernard Jacob**, LCPC

- 9:00 – 9:15 **Maxwell Lay**  
*A History of Freight Transport prior to the modern Truck*
- 9:15 – 9:30 **Jean-François Janin**  
*Intelligent Freight*
- 9:30 – 9:45 **Deborah Walker**, Tom Kearney  
*2006 European Scan: Commercial Motor Vehicle Size & Weight Enforcement in Europe*
- 9:45 – 10:00 **Eugene O'Brien**, Aleš Žnidarič, Tatsuya Ojio  
*Bridge WIM - Latest Developments Worldwide*
- 10:00 – 10:15 *Discussion*

**Coffee break**

**WIM Session 2**

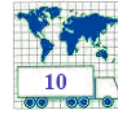
**10:35 – 12:30 (amphi Cauchy)**

**WIM Technology and Testing**

Chair: **Morris De Beer**, CSIR

Co-chair: **Vittorio Dolcemascolo**, DIRIF

- 10:35 – 10:50 **Bernard Jacob**, Mohamed Bouteldja, Daniel Stanczyk  
*Installation and Experimentation of MS-WIM Systems with Three Strip Sensor Technologies*
- 10:50 – 11:05 **Arturo González**, Eugene OBrien, Fionnuala McInerney  
*A Statistical Spatial Repeatability Algorithm for Multiple Sensor Weigh-in-Motion*
- 11:05 – 11:20 **Jose Romero**, Alejandro Lozano  
*A hydrostatic Sensor for portable WIM Systems*
- 11:20 – 11:35 **David Cornu**  
*Product Development to meet new Requirements regarding Road and Rail WIM Technologies*
- 11:35 – 11:50 **Chris Koniditsiotis**, Bob Peters  
*Heavy Vehicle On-Board Mass Monitoring: Capability Review*
- 11:50 – 12:05 **Les Bruzsa**, Chris Blanksby, Rod George, Bob Peters, Adam Ritzinger  
*Measuring Dynamic Wheel Loads on Tri and Quad Axle Groups*
- 12:05 – 12:30 *Discussion*



## HVTT Session 2

11:00 – 12:30 (amphi Navier)

### European Modular Concept

Chair: **Christophe Penant**, Michelin

Co-chair: Wanda Debauche, BRRC

11:00 – 11:20 **Wanda Debauche**

*Working Group on longer and heavier Goods Vehicles : A Multidisciplinary Approach to the Issue*

11:20 – 11:40 **Timea Fülep**, Gabor Bozsvari, Laszlo Palkovics

*Driving Dynamics and Stability Issues of the European Road Train Concepts*

11:40 – 12:00 **Loes Aarts**, Gerben Feddes

*Experience with longer and heavier Trucks in the Netherlands*

12:00 – 12:30 *Discussion*

**Lunch**

## Poster Session / Session Posters

13:30 – 15:00 (Exhibition hall)

### HVTT

**Jacques Marmy**, Marten Johansson

*Sustainable Road Transport is a Key Component of the global Economy*

**Jacques Marmy**

*Harmonisation of the European Modular Concept to promote Co-modality*

**Herve Arki**, Véronique Cerezo

*"Heavier, Higher, Longer": the Right Motto for the Right Mode ?*

**Klaus-Peter Glaeser**

*A New Vehicle-Pavement Interaction Test Facility at BAST*

**Siegfried Maiolino**, Habibou Maitournam, Véronique Cerezo

*Steady State Flow Algorithm for modeling the Impact of Trucks on Road*

**Sylvie Yotte**, Mohsen Ech, Denys Breyse, Bertrand Pouteau

*How can the Binder Properties influence the Road Surface Durability? An advanced Method based on the bearing Ratio Curve*

**Marten Johansson**

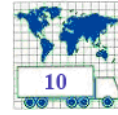
*Improved Brakes on Heavy Commercial Vehicles*

**Joao Widmer**

*A Proposal of an International Vehicle Designation Structure for Cargo Combination Vehicles*

**Leif Sjögren**

*HGV guidance, Road Data and Applications*



## **WIM**

**Hideshi Nishida**, Hisayoshi Sato, Hiroshi Kawai, Shinichi Nakao  
*Special Vehicle Automatic Measurement System and Its Application*

**Marcel Dukker**, Dave Marples  
*Practical Experience and the next Generation of WIM*

**Hocine Imine**, Salim Srairi, David Gil, Joel Receveur  
*Heavy Vehicle Management Center and Infrastructure Interactivity to manage the Access to Infrastructure*

**Kimio Someya**, Hiroyoshi Okuda, Takekazu Shindo, Yasutoshi Maeda  
*Development of Axle Load Weighing System for Expressways*

**Janusz Gajda**, Ryszard Sroka, Marek Stencel, Tadeusz Zeglen  
*Multi-Sensor Weigh-In-Motion System*

**Mohamed Bouteldja**, Bernard Jacob, Vittorio Dolcemascolo  
*Optimized Design of Weigh-In-Motion Multiple-Sensor Array by an Energetic Approach*

**Tommy Chan**, Ling Yu, Junhua Zhu  
*Moving Vehicle Load Identification from Bridge Responses based on Method of Moments*

**Kevin McFadden**, Felix Klebe  
*Virtual Weigh Stations for Monitoring of Trucks by-passing fixed Weigh Stations*

**Daniel Stanczyk**, Benoît Geroudet, Charles Thiounn, Alain Millot  
*Pre-selection of Overloaded Vehicles*

**Janusz Gajda**, Ryszard Sroka  
*Accuracy Analysis of WIM Systems Calibrated Pre-Weighed Vehicles Method*

**Robert Abercrombie**, Lee Hively, Matthew Scudiere, Frederick Sheldon  
*Breakthrough Error Reduction in Portable, Low-Speed Weigh-In-Motion*

**David Timm**, Kendra Peters, Rod Turochy  
*Effects of Axle Load Spectra Shifts on Highway Infrastructure Damage and Cost*

## **HVTT Session 3**

**15:00 – 16:45 (amphi Navier)**

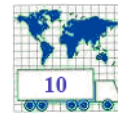
### **Vehicle Road Interaction**

Chair: **John de Pont**, TERNZ      Co-chair: Karim Chatti, Michigan State University

15:00 – 15:20 **Pascaline Cousin**, Grégoire Durand, Hervé Guiraud  
*Pavement building Costs Allocation to HGV : Comparison between the French Case and the Eurovignette Directive Recommendations*

15:20 – 15:40 **Karim Chatti**, Anshu Manik, Nicholas Brake  
*Effect of Axle Configurations on Fatigue and Faulting of Concrete Pavements*





- 15:40 – 16:00 **Christophe Penant**  
*A brief Review of Tyre-Pavement Interaction and an Insight on new Regulation on Tyre Rolling Resistance in Europe*
- 16:00 – 16:20 **Véronique Cerezo**, Michel Gothié, Guy Dupré  
*The Danger of Ramps for Heavy Goods Vehicles*
- 16:20 – 16:45 *Discussion*

### WIM Session 3

15:00 – 16:45 (amphi Cauchy)

#### Bridge WIM

Chair: **Aleš Žnidarič**, ZAG

Co-chair: Tatsuya Ojio, Meijo University

- 15:00 – 15:20 **Igor Lavrič**, Aleš Žnidarič, Jan Kalin  
*Improving Bridge-WIM Results with better Road Evenness and advanced Compensations*
- 15:20 – 15:40 **Cillian Rowley**, Arturo González, Eugene O'Brien, Aleš Žnidarič  
*Comparison of conventional and regularised Bridge Weigh-in-motion Algorithms*
- 15:40 – 16:00 **Mohamed Bouteldja**, Bernard Jacob, Vittorio Dolcemascolo  
*Test of a B-WIM System on Integral and Steel Orthotropic Deck Bridges in France*
- 16:00 – 16:20 **Leif Sjögren**, Vittorio Dolcemascolo  
*Performance Comparison of a Bridge-WIM System in France and in Sweden*
- 16:20 – 16:45 *Discussion*

**Coffee break**

### Panel Discussion / Table ronde II (WIM)

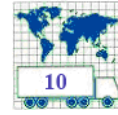
17:05 – 18:15 (amphi Cauchy)

#### The Use of Weigh-in-Motion for Overload Enforcement and Infrastructure Protection *Utilisation du pesage en marche pour le contrôle des surcharges et la protection des infrastructures*

Chair: **Eugene O'Brien**, UCD

Panelists: Morris de Beer (CSIR, ZA), Chia-Pei Chou (NTU, TW), Bernard Jacob (LCPC, FR), Athanassios Papagiannakis (University of Texas-San Antonio), Hans Van Loo (Kalibra, NL), Aleš Žnidarič (ZAG, SI), and representatives of Kistler and Sterela.

**20:00: Conference Dinner / Dîner de gala**, Le Train Bleu (Gare de Lyon)



**Wednesday, May 21, 2008**

**Plenary Session III / Session plénière III**

**9:00 – 10:00 (amphi Cauchy)**

Chair: **Anders Lundström**, Scania

- 9:00 – 9:15     **John Woodrooffe**  
*International Vehicle Performance Benchmarking (OECD Study)*
- 9:15 – 9:30     **Hans Silborn**  
*Measures promoting Intermodal Transport as an Alternative to pure Road Transport*
- 9:30 – 9:45     **Geoffrey Ackermann**, Hechter Theyse, Louw Kannemeyer, Christo van As  
*Current Status of Weigh-in-Motion in Sub Sahara Africa*
- 9:45 – 10:00    *Discussion*

**WIM Session 4**

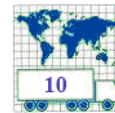
**10:05 – 11:10 (amphi Cauchy)**

**Vehicle Size and Weight Enforcement**

Chair: **Hans van Loo**, Kalibra

Co-chair: Jerry Hajek, RRI

- 10:05 – 10:20    **Malcolm Jones**  
*Targeted Roadside Enforcement using WIM and ANPR*
- 10:20 – 10:35    **Yves Marchadour**, Bernard Jacob  
*Development and Implementation of WIM Systems for Enforcement in France*
- 10:35 – 10:50    **Emil Doupal**, Reto Calderara  
*Combined LS & HS WIM Systems for Law Enforcement and Toll Road Applications*
- 10:50 – 11:10    *Discussion*



### HVTT Session 4 (a)

10:05 – 11:10 (amphi Navier)

#### Safety

Chair: **John Woodrooffe**, University of Michigan    Co-chair: Véronique Cerezo, CETE de Lyon

- 10:05 – 10:25 **Jeff Potter**, Jørgen Christensen  
*Analysis of International Heavy Vehicle Safety Data. Initial Results of the OECD/ITF Working Group on Heavy Vehicles: Regulatory, Operational and Productivity Improvements*
- 10:25 – 10:45 **Michel Gothié**, Véronique Cerezo, Florence Conche  
*Relationship between Road Infrastructure Characteristics and HGV Accidents*
- 10:45 – 11:05 **Dan Turner**, Leslie Anne Nicholson, Ken Agent  
*Oversize/Overweight Commercial Vehicle Safety*
- 11:05 – 11:10 *Discussion*

**Coffee break**

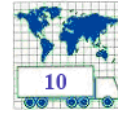
### HVTT Session 4 (b)

11:30 – 13:00 (amphi Navier)

#### Safety

Chair: **John Woodrooffe**, University of Michigan    Co-chair: Véronique Cerezo, LRPC Lyon

- 11:30 – 11:50 **Yamine Sellami**, Hocine Imine, Bernard Jacob, Frédéric Bernardin, Jean-Charles Cadiou  
*Rollover Risk Prevention of Heavy Vehicles by Reliability-based Analysis*
- 11:50 – 12:10 **Sogol Kharrazi**, Robert Thomson  
*Analysis of Heavy Truck Accidents with Regard to Yaw and Roll Instability using LTCCS Database*
- 12:10 – 12:30 **Tahera Anjuman**, C. Kawsar Arefin Siddiqui, S. Hasanat-e-Rabbi, M. Mazharul Hoque  
*Heavy Vehicle Driver Involvement in Road Safety and Multiple Vehicle Accidents in Bangladesh*
- 12:30 – 12:50 **Janine Kuebler**  
*Improvement of Safety Barriers on German Bridges - Results of Impact Tests with Heavy Lorries*
- 12:50 – 13:00 *Discussion*



## HVTT Session 5

11:30 – 13:00 (room P314)

### Routing

Chair: **Klaus-Peter Glaeser**, BAST

Co-chair: John de Pont, TERNZ

- 11:30 – 11:45 **Chris Koniditsiotis**  
*Australia's Intelligent Access Program*
- 11:45 – 12:00 **Anita Ihs**, Damaris Omasits, Gunnar Lindberg  
*HeavyRoute - Intelligent Route Guidance for Heavy Vehicles*
- 12:00 – 12:15 **Philipp Meisen**, Andreas Friedrichs, Klaus Henning  
*A Generic System Architecture for a Driver Information System to Organize and Operate Truck Platoons*
- 12:15 – 12:30 **Philipp Meisen**, Thomas Seidl, Klaus Henning  
*A Data-Mining Technique for the Planning and Organization of Truck Platoons*
- 12:30 – 12:45 **Eiichi Taniguchi**, Yoshikazu Imanishi  
*Methodology and Effects of Heavy Goods Vehicle Transport Management in Urban Areas*
- 12:45 – 13:00 Discussions

## WIM Session 5

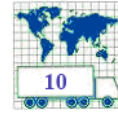
11:30 – 13:00 (amphi Cauchy)

### WIM Standards, Data Quality, Storage and Management

Chair: **Lily Poulidakos**, EMPA

Co-chair: Tommy Chan, QUT

- 11:30 – 11:45 **Athanassios Papagiannakis**  
*A Synthesis of the US Practice on High Speed WIM Calibration*
- 11:45 – 12:00 **Grant Schultz**, Luke Seegmiller  
*Utah Commercial Motor Vehicle Weigh-in-Motion Calibration: Current Practice and Recommended Procedure*
- 12:00 – 12:15 **Piotr Burnos**  
*Auto-calibration and Temperature Correction of WIM Systems*
- 12:15 – 12:30 **Martin Slavik**  
*WIM Accuracy Verification through Simulation*
- 12:30 – 12:45 **Gerhard De Wet**, Martin Slavik  
*Macroscopic WIM Calibration*
- 12:45 – 13:00 *Discussion*



**Lunch**

**WIM Session 6**

**14:15 – 16:15 (amphi Cauchy)**

**WIM Data for Bridge Engineering**

Chair: **Bernard Jacob**, LCPC

Co-chair: Alan O'Connor, TCD

- 14:15 – 14:30 **Alan O'Connor**  
*Application of WIM in Probability Based Safety Assessment of Bridges*
- 14:30 – 14:45 **Aleš Žnidarič**, Igor Lavrič, Jan Kalin  
*Measurements of Bridge Dynamics with a Bridge Weigh-in-Motion System*
- 14:45 – 15:00 **Chia-Pei Chou**, Chungyue Wang  
*Identification of Equivalent Traffic Load on Bridge using Optical Fiber Strain Sensors*
- 15:00 – 15:15 **Dominique Siegert**, Marc Estivin, Joel Billo, FX Barin, Francois Toutlemonde  
*Extreme Effects of the Traffic Loads on a Prestressed Concrete Bridge*
- 15:15 – 15:30 **Han Leendertz**  
*Interaction Effect of Traffic Loads and Bridge Details susceptible to Fatigue*
- 15:30 – 15:45 **Yoshinobu Oshima**, Kunitomo Suguira  
*Fatigue Life Estimation of a Concrete Slab using B-WIM and Traffic Census*
- 15:45 – 16:15 *Discussion*

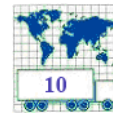
**HVTT Session 4 (c)**

**14:15 – 15:15 (amphi Navier)**

**Safety**

Chair: **John Woodroffe**, University of Michigan    Co-chair: Véronique Cerezo, LRPC Lyon

- 14:15 – 14:35 **Hans Prem**, Luan Mai, Glenn Gorham, Don Hutchinson, John Long  
*Rollover Crash Analysis of a Road Tanker with self-steer Axles*
- 14:35 – 14:55 **Aleksandra Krusper**, Robert Thomson  
*Crash Compatibility between HGVs and Passenger Cars: Structural Interaction Analysis and in-depth Accident Analysis*
- 14:55 – 15:15 *Discussion*



**HVTT Session 6**  
**14:15 – 16:15 (room P314)**

**Vehicle Performance**

Chair: **Paul Nordengen**, CSIR

Co-chair: Jacques Marmy, IRU

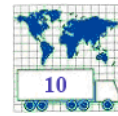
- 14:15 – 14:35 **Waldemiro Pereira Neto**, Joao Widmer  
*Compatibility of long and heavy Cargo Vehicles with the Geometric Design Standards of Brazilian rural Roads and Highways*
- 14:35 – 14:55 **John Billing**  
*The Effect of Wind on Heavy Vehicles*
- 14:55 – 15:15 **John De Pont**, Neon Taramoeroa  
*Tyre Scuffing Forces from Multi-Axle Groups*
- 15:15 – 15:35 **Hans Prem**, Luan Mai, Garth Davey  
*A new Steerable Wheel System for Road Transport Applications*
- 15:35 – 15:55 **Jonathan Miller**, Frank Kienhofer, David Cebon  
*Design Concept for an Alternative Heavy Vehicle Slip Control Brake Actuator*
- 15:55 – 16:15 **Andrews Odhams**, Richard Roebuck, Brian Jujnovich, David Cebon  
*Implementation of Active Rear Steering of a Tractor-Semi Trailer*

**Coffee break**

**IFRTT and ISWIM General Assemblies and Boards**  
**(amphi Cauchy)**

IFRTT	ISWIM
16:45 – 17:30 IFRTT General Assembly <sup>1</sup>	17:30 – 18:15 ISWIM General Assembly <sup>1</sup>
18:15 – 18:45 IFRTT Board Meeting <sup>2</sup>	18:45 – 19:15 ISWIM Board Meeting <sup>2</sup>

<sup>1</sup> All delegates welcome/Tous les délégués sont bienvenus      <sup>2</sup> For board members only



Thursday, May 22, 2008

### HVTT Session 7

8:30 – 10:30 (amphi Cauchy)

#### Road Transport Policies and Operation

Chair: Erik Dahlberg, Scania

Co-chair: Victor Dolcemascolo, DRIF

- 8:30 – 8:50 **Peter Sweatman**  
*Vehicle Infrastructure Integration (VII) for Heavy Trucks*
- 8:50 – 9:10 **Marten Johansson**  
*Correct Loaded Heavy Commercial Vehicles*
- 9:10 – 9:30 **Matthieu Bereni**  
*Heavy Vehicles Overtaking Bans: some Information to assist Decision-Making*
- 9:30 – 9:50 **John De Pont**  
*Optimising Log Truck Configurations*
- 9:50 – 10:10 **Jerry Hajek**, David Hein, Donald Swan  
*Transportation of Raw Forest Products in Northern Ontario*
- 10:10 – 10:30 *Discussion*

### WIM Session 7

8:30 – 10:20 (amphi Navier)

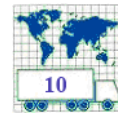
#### WIM Data for Pavement Engineering

Chair: Chia-Pei Chou, NTU

Co-chair: Karim Chatti, Michigan State University

- 8:30 – 8:50 **Clyde Lee** - *Fifty-three Years of WIM History: 1955-2008*
- 8:50 – 9:05 **Francesca La Torre**  
*The Use of WIM and SIM Data in Road Management: the Results of a PIARC Inquiry*
- 9:05 – 9:20 **Lily Poulikakos**, G. Morgan, M-U. Arraigada, R. Muff, Manfred Partl  
*Stress-in-Motion Measurements of Heavy Vehicles from the Swiss Footprint Monitoring Site*
- 9:20 – 9:35 **Morris De Beer**  
*Stress-In-Motion (SIM) - A New Tool for Road Infrastructure Protection ?*
- 9:35 – 9:50 **Kendra Peters**, David Timm  
*Effects of Increasing Truck Weight Limit on Highway Infrastructure Damage*
- 9:50 – 10:20 *Discussion*

**Coffee break**



## Conclusions / Conclusions

11:00 – 12:15 (amphi Cauchy)

- 11:00 – 11:15 **HVTT10 Conclusions / Conclusions HVTT10** : Anders Lundström, IFRTT chairman
- 11:15 – 11:30 **ICWIM 5 Conclusions / Conclusions ICWIM 5** : Eugene O'Brien, ISWIM chairman
- 11:30 – 11:45 **European Perspectives / Perspectives européennes** : Luisa Prista  
Head of Unit Surface Transport, European Commission, Directorate-General for Research  
*Chef de l'unité Transports de surface, Commission européenne, Direction Générale pour la Recherche*
- 11:45 – 12:00 **Perspectives Futures / Future Perspectives** : Régine Bréhier  
Directrice de la Recherche et des Affaires Scientifiques et Techniques, Ministère de l'Ecologie, de l'Energie, du Développement durable et de l'Aménagement du territoire  
*Director of the Research, Scientific and Technical Affairs, Ministry of Ecology, Energy, Sustainable Development and Land Planning*  
Représentée par / represented by **Pierre Valla**, Directeur adjoint / Deputy Director

## Closure / Clôture

12:15 – 12:45 (amphi Cauchy)

Award Ceremony / Remise des prix

Acknowledgements / Remerciements

**Lunch**

\*\*\*\*\*

## Séminaire de clôture de l'opération de recherche TRUCKS LCPC's Workshop on Heavy Vehicles

14:15 – 18:00 (amphi Cauchy)

Ce séminaire rend compte de l'opération de recherche TRUCKS (2003-2007) du LCPC sur les poids lourds, avec comme thèmes : (i) accidentologie des poids lourds, (ii) comportement dynamique et défaillances, (iii) gestion des poids lourds sur les infrastructures, (iv) pesage en marche et détection des surcharges.

**Accès libre** – Présentations en français, projections en anglais, discussions dans les deux langues.

*This workshop will report the five year (2003-2007) research programme of the LCPC on Heavy Vehicles, with a focus on: (i) Truck accidents, (ii) Dynamic Behaviour and Roll-over Prevention, (iii) Truck Management for Infrastructures, (iv) Weigh-In-Motion and Overload Screening.*

**Free access** – Presentation in French, slides in English, discussion in both languages.





Programme

	Morning		Afternoon			Evening
<b>Sunday, May 18</b>			15:00 – 18:00 <i>Committee meetings (ISWIM, IFRTT, OC + SC)</i> Registration			18:30-21:00 Welcome Cocktail (ENPC)
<b>Monday, May 19</b>	9:00-11:00 <b>Opening Session</b>	11:30-12:30 <b>Plenary Session 1</b>	13:30-15:15 OECD/JTRC session 15:15-16:30 Technical session HVTT1 14:45-16:30 Technical Session WIM1	16:55-18:10 Panel Discussion 1 (HVTT)	18:10-19:15 Demos and games	19:15-21:15 Ice-breaking Buffet (ENPC)
<b>Tuesday, May 20</b>	9:00-10:15 <b>Plenary Session 2</b>	10:35-12:30 Technical Sessions HVTT2 + WIM2	13:30-15:00 : <b>Poster Session</b> 15:00-16:45 Technical Sessions HVTT3+ WIM3	17:05-18:15 Panel Discussion 2 (WIM)		20:00-23:00 Conference Dinner (Le Train Bleu)
<b>Wednesday, May 21</b>	9:00-10:00 <b>Plenary Session 3</b> 10:05-11:10 Technical Sessions HVTT4a + WIM4	11:30-13:00 Technical Sessions HVTT4b & 5 + WIM5	14:15-16:15 Technical Sessions HVTT4c & 6 + WIM6	16:45-18:15 IFRTT - ISWIM General Assemblies	18:15-19:15 IFRTT/ISWIM boards	free
<b>Thursday, May 22</b>	8:30-10:30 Technical Sessions HVTT7 + WIM7	11:00-12:15 <b>Conclusions</b> 12:15-12:45: <b>Closure</b>	14:15-18h00: LCPC Truck Workshop (output of the Research Programme 2003-2007, in French, English slides displayed)			



## Programme

	Matin		Après-midi			Soirée
<b>Dimanche 18 mai</b>			15:00 – 18:00 <i>Réunions de comités (ISWIM, IFRTT, CO + CS)</i> Enregistrement			18:30-21:00 Cocktail d'accueil (ENPC)
<b>Lundi 19 mai</b>	9:00-11:00 <b>Session d'ouverture</b>	11:30-12:30 <b>Session plénière 1</b>	13:30-15:15 : Session OCDE/JTRC 15:15-16:30: <b>session technique HVTT1</b> 14:45-16:30: session technique WIM1	16:55-18:10 <b>Table ronde 1 (HVTT)</b>	18:10-19:15 <b>Démos et jeux</b>	19:15-21:15 Buffet convivial (ENPC)
<b>Mardi 20 mai</b>	9:00-10:15 <b>Session plénière 2</b>	10:35-12:30 Sessions techniques <b>HVTT2 + WIM2</b>	13:30-15:00 : <b>Session posters</b> 15:00-16:45 Sessions techniques <b>HVTT3 + WIM3</b>	17:05-18:15 <b>Table ronde 2 (WIM)</b>		20:15-23:00 Dîner de gala (Le Train Bleu)
<b>Mercredi 21 mai</b>	9:00-10:00 <b>Session plénière 3</b> 10:05-11:10 Sessions techniques <b>HVTT4a + WIM4</b>	11:30-13:00 Sessions techniques <b>HVTT4b &amp; 5 + WIM5</b>	14:15-16:15 Sessions techniques <b>HVTT4c &amp; 6 + WIM6</b>	16:45-18:15 <b>IFRTT - ISWIM</b> <b>Assemblées générales</b>	18:15-19:15 <b>Conseils</b> <b>IFRTT/ISWIM</b>	<i>libre</i>
<b>Judi 22 mai</b>	8:30-10:30 Sessions techniques <b>HVTT7 + WIM7</b>	11:00-12:15 <b>Conclusions</b> 12:15-12:45: <b>Clôture</b>	14:15-18h00: Séminaire LCPC "Truck" (bilan du programme de recherche 2003-2007, en français, diapos en anglais)			

## Sponsors and Exhibitors

### Major Sponsors / *Sponsors majeurs*



### Sponsors



**KNORR-BREMSE**



### Exhibitors / *Exposants*

Captels, Cestel, Electronique Contrôle Mesure, International Road Dynamics Inc., Kalibra International, Kistler Instrument AG, Knorr-Bremse, Laboratoire Central des Ponts et Chaussées, Measurement Specialties, Michelin, Ministère de l'Ecologie, Energie, Développement durable et Aménagement du territoire (DGMT), Renault Trucks, Sterela, TDC Systems Ltd.



### Conference Organizing Committee

<b>Bernard Jacob (chair)</b>	LCPC	France
<b>Victor Dolcemascolo (vice-chair)</b>	DIRIF	France
Hocine Imine	LCPC	France
Véronique Cerezo	CETE Lyon	France
Armel de la Bourdonnaye	ENPC	France
Bernard Favre	Renault Trucks	France
Christophe Penant	Michelin	France
Anders Lundström	IFRTT - Scania	Sweden
Eugene O'Brien	ISWIM - UCD	Ireland

### International Scientific Committee on HVTT

<b>David Cebon (chair)</b>	CUED	United Kingdom
<b>Bernard Jacob (co-chair)</b>	LCPC	France
Karim Chatti	Michigan State University	United States
John De Pont	TERNZ	New Zealand
Victor Dolcemascolo	DIRIF	France
Mark Gardner	Fugro	United States
Klaus Peter Glaeser	BAST	Germany
Chris Koniditsiotis	TCA	Australia
Anders Lundström	Scania	Sweden
Paul Nordengen	CSIR	South Africa
Eugene O'Brien	UCD	Ireland
Laszlo Palkovics	Knorr-Bremse	Hungary
Christophe Penant	Michelin	France
Peter Sweatman	University of Michigan	United States
Joao Widmer	University of Sao Paulo	Brazil
John Woodrooffe	University of Michigan	United States
+ Véronique Cerezo	CETE de Lyon	France

### International Scientific Committee on Weigh-in-Motion

<b>Bernard Jacob (chair)</b>	LCPC	France
<b>Eugene O'Brien (co-chair)</b>	UCD	Ireland
Tommy Chan	QUT	Australia
Chia-Pei Chou	NTU	Taiwan (ROC)
Morris De Beer	CSIR	South Africa
John De Pont	TERNZ	New Zealand
Victor Dolcemascolo	DIRIF	France
Mark Gardner	Fugro	United States
Ralph Gillmann	FHWA	United States
Jerry Hajek	Applied Research Ass.	Canada
Chris Koniditsiotis	TCA	Australia
Jesus Leal	CEDEX	Spain
Hans van Loo	Kalibra	The Netherlands
Ralph Meschede	BAST	Germany
Tatsuya Ojio	Meijo University	Japan
Lily Poulidakos	EMPA	Switzerland
Aleš Žnidarič	ZAG	Slovenia
+ Alan O'Connor	TCD	Ireland

**Proceedings Editors :** **Bernard Jacob, Eugene O'Brien, Paul Nordengen**  
& Alan O'Connor, Mohamed Bouteldja