# **TAP 2016 Final Program**

Please note that only the name of the first author is indicated. However, TAP proceedings will include the names of all the contributors.

# Day 1: Tuesday 24th May 2016

0.00	Registration - coffee
0.00	negisti ation - tonee

## PLENARY SESSION (Amphitheater)

## 8:45 Opening – Welcome

Chairmen: Salah Khardi (Senior Researcher, IFSTTAR, France) and Thomas Bütler (Head of Vehicle Systems Group. Automotive Powertrain Technologies Laboratory, EMPA - Switzerland)
Hélène Jacquot-Guimbal (General Directorate, IFSTTAR)

Philippe Grand (President of LUTB Transport & Mobility Systems and IVECO France)

9:00 Ms. Ségolène Royal (Minister of the Environment, Energy and Marine Affairs, responsible for International Climate Relations - France) or her representative: to be confirmed

9:30 Ms Joanna Szychowska (European Commission. DG Internal Market, Industry, Entrepreneurship and SMEs. Unit - Automotive and Mobility Industries, Belgium)

The EU regulatory system for Type Approvals of Motor Vehicles and how to avoid another Dieselgate

#### 10:00 Pr Tim Wallington (Ford Motor Company, USA)

Light-Duty Vehicles Emissions and Urban Air Quality: Past, Present, and Future Perspectives

## 10:45 Amphitheater

#### Exhaust and non-exhaust emissions from transport modes: measurements and modelling

Chairmen: Christian George (IRCELYON, France) and Norbert Ligterink (TNO, NL)

In service CO2 and NOX emissions of Euro 6/VI cars, light- and heavy-duty goods vehicles in real London driving: Taking the road into the Laboratory

James Tate (Institute for Transport Studies - University of Leeds, United Kingdom)

PM10 emission effects of new studded tyre regulations

Mats Gustafsson (Swedish National Road and Transport Research Institute, Sweden)

Portable Emissions Measurement System (PEMS) data for Euro 6 diesel cars and comparison with emissions modelling

O'Driscoll Rosalind (Imperial College London, United Kingdom)

Emissions of NO, NO2, and PM from inland water transportation

Ralf Kurtenbach (Bergische Universität Wuppertal, Germany)

#### 10:45 Room B

#### Transport policies and mobility challenges towards cleaner cities

Chairmen: Tim Wallington (Ford Motor Company, USA) and Asif Faiz (FA, USA)

Evaluation of E-mobility co-benefits in Klagenfurt

Ulrich Uhrner (Traffic & Environment, IVT, Graz University of Technology, Austria)

ESPRIT: a new carsharing concept - A socio-economic assessment from Lyon region, France Sadeghian Shadi (VEDECOM Institute, France)

Analyzing effectiveness of air quality management policies in Peru: improvements and challenges

Gomes Lima Ana Luisa (World Bank, USA)

Vehicle fleet composition in urban environment

Eijk Arjan (TNO, Netherlands)

Decomposition of Low emission zone strategies into mechanisms and methodology for assessing their impacts on air pollution

Pasquier Anaïs (IFSTTAR, France)

Combined air quality and noise evaluation of transport policies: methodology and feedbacks *Philippe Dunez (CEREMA, France)* 

Reducing Freight Transport Pollution by using Electric good vehicles in Paris region Montenon Antoine (LUTB-RAAC, France)

#### 10:45 Room C

## **Intelligent Transports Systems and traffic management**

Chairman: Nour-Eddin El-Faouzi (IFSTTAR, France)

Air pollution and energy consumption mitigation by Parking Guiding System

Benhassine Sana (Ecole Supérieure Commerce Tunis, Tunisia)

Sustainability Enhancement of Urban Traffic Routing via Multi Criteria Optimisation

Nai Oleari Alberto (Automotive, Infrastructure & Transportation Division, Altran Technologies, France)

Combining microscopic traffic modelling and 3 pollutant emission modellings to assess modifications of traffic supply and demand

Badin Anne-Laure (Cerema, France)

truckRCS - Truck Rail Cargo System - Road & Rail Network Innovation

Korn Patrick (Voith Engineering Services GmbH, Germany)

An Efficient Lane-based Strategy to provide an Eco-Signal Pre-emption Control System Using Connected Vehicles Technology

Noaeen Mohammad (Department of Electrical and Computer Engineering, University of Calgary, Canada)

### 12:30 Lunch Break

#### 13:30 Poster session

Chairmen: Serge Pelissier and Didier Pillot (IFSTTAR, France)

#### 14:30 Amphitheater

#### Exhaust and non-exhaust emissions from transport modes: measurements and modelling

Chairwoman: Dilara Panagiota (JRC, European Commission)

Particle mass size distribution relation to train traffic and type in a railway tunnel

Mats Gustafsson (Swedish National Road and Transport Research Institute, Sweden)

Modelling non-exhaust emissions of road salt using the NORTRIP model

Rolstad Denby Bruce (Norwegian Meteorological Institute, Norway)

DPF regeneration of Euro5 Diesel vehicles as source of fine and ultrafine particles in the atmosphere

Barbara D'Anna and R'mili Badr (IRCELYON, France)

Intercomparison of three modeling approaches for road dust resuspension using two experimental data sets

Thouron Laëtitia (CEREA, France)

How selection techniques on traffic data sets can help in estimating network vehicle emissions Schiper Nicole (IFSTTAR ENTPE, France)

#### 14:30 Room B

## Building and maintenance of road infrastructures (roads, tunnels, new materials and technologies)

**Chairman: Mario Keller (INFRAS, Switzerland)** 

Influence of pavement management on road traffic emissions and associated costs

Pellecuer Luc (Département de génie de la construction, École de technologie supérieure, Canada)

Potential and methods to reduce GHG emissions from road infrastructure

Johansson Håkan (Swedish Transport Administration, Sweden)

BIOTAIR: Biofiltration treatment, promising results for reducing road traffic pollutants

Petit Jean-François (CEREMA, France)

Use of cement-based materials containing activated carbon to improve air quality in road-transport infrastructures: pilot field tests done in France & Spain

Isabelle Dubois-Brugger (LafargeHolcim R&D, France)

#### 14:30 Room C

## Transport, energy consumption and Greenhouse Gas emissions

Chairmen: Stefan Hausberger (TUG, Austria) and Laurent Gagnepain (ADEME, France)

ITS environmental monitoring: Development of an innovative method based on unique data for traffic management and traffic user information

Heidegger Fabian (ITS Vienna Region, Public Transport Authority Eastern Region, Austria)

The most promising environmental innovations in inland waterway transport

Consuegra Sara (Verbeek, Netherlands)

Monitoring Specific Energy Consumption and CO2 Emissions from Rail Traction Activity

A. Braschi (Sustainable Development Unit, International Railways Union, France)

Using a simplified Willans line approach as a means to evaluate the savings potential of CO2 reduction measures in Heavy-Duty Transport

Zyl Stephan (TNO, Netherlands)

Impact assessment of vehicle technology, fuel, and ICT measures on CO2 emissions from road traffic to 2030

Papadimitriou Giannis (Emisia S.A., Greece)

Modal Shifting Effects and Climate Impacts through Electric Bicycle Use in Germany

Kaemper Claudia (Institut für Energie- und Umweltforschung, Germany)

#### 16:00 Coffee Break

## 16:30 Amphitheater

#### Exhaust and non-exhaust emissions from transport modes: measurements and modelling

Chairmen: Salah Khardi (IFSTTAR, France) and Peter Sturm (TUG, Austria)

An emissions inventory for non-road mobile machinery (NRMM) in Switzerland

Notter Benedikt (INFRAS Research and Consulting, Switzerland)

Evaluation of emissions and fuel consumption of Heavy-Duty Vehicles in urban areas Zamboni Giorgio (Dept. MEMTE - University of Genoa, Italy)

Development of Road Transport Emissions: Case Study of Singapore for 2004-2014 Arimbi Jinca (TUM CREATE, Singapore)

RemIAG model: Bottom-up emissions inventories for cities with lack of data *Ibarra Sergio (Instituto de Astronomia, Geofisica e Ciencias Atmosfericas, Sao Paulo - Brazil)* 

A comprehensive evaluation method for instantaneous emission measurements

Weller Konstantin (Graz University of Technology, Austria)

## 16:30 Room B

# Transport and non-transport emission interactions Human exposure and health impacts

Chairman: Åke Sjödin (IVL, Sweden)

Investigation on lowering commuters' in-vehicle exposure to ultrafine particles

Xu Bin (Tongji University, Shanghai - China)

Air quality in urban Mass Transit Systems: indoor/outdoor interrelations

Muresan Bogdan (IFSTTAR, France)

Risk Exposure of BTEX Emissions from a Diesel Refuelling Station in Johannesburg, South Africa

Moolla Raeesa (University of the Witwatersrand, South Africa)

Reconstructing past and present dioxins atmospheric pollution scenarios in the city of Lyon

Coudon Thomas (Santé Individu Société – SIS, France)

Effects of bike lane features on cyclists' exposure to black carbon and ultrafine particles

Lonati Giovanni (Politecnico di Milano, Italy)

#### 16:30 Room C

## Transport, energy consumption and Greenhouse Gas emissions

Chairman: Ernesto Sanchez-Triana (World Bank, USA)

Analysis of Diurnal Trends in Vehicle Fleet Composition and their Emission Contribution on an Urban Arterial Road in Leeds, UK

Wyatt David (University of Leeds, United Kingdom)

Vehicle emissions in Turkey: Current status and policy options for the future

Mock Peter (International Council on Clean Transportation, Germany)

Market fuel properties and CO<sub>2</sub> emissions for mobility

Ligterink Norbert (TNO, Netherlands)

Scenario analysis of CO<sub>2</sub> emissions in the period 2015-2035 from passenger vehicles in Ireland Alam Md Saniul (Environmental Protection Agency, Ireland)

Prospective of the city and the daily mobility: which tools for the environmental assessment? Francois Cyrille (LET ENTPE, France)

An Alternative Energy Efficiency Index Offer to Reduce CO2 Emissions from Ships: Fleet Energy Efficiency Management Index

Gorkem Kokkulunk (Yıldız Technical University, Turkey)

A real-world test and demonstration project for assessing consumption and emission of Natural Gas Heavy Good Vehicles: Equilibre Project

F. Baouche (IFSTTAR, France)

## 16:30 Room D

## PRESS CONFERENCE

## 18:00 End of day 1 sessions

## 19:15 - Welcome Cocktail

## Day 2: Wednesday 25th May 2016

8:00	Registration - coffee
	PLENARY SESSION (Amphitheater)
	Chairmen: Klaus Schäfer (IMK-IFU, Germany) and Zissis Samaras (LAT/AUTH, Greece)
8:30	Marie-Françoise Sherratt-Roux (French National Contact Point - Transport, France)  Presentation of Horizon 2020 calls for 2017 in the area of Transport and air pollution
9:00	Dr Rodolfo Lacy Tamayo Ph.D. (Subsecretario de Planeación y Política Ambiental, México)  Air Pollution Control and Fuel Subsidies in Mexico
9:30	Pr Sergio Sanchez (CEO and Executive Director - Clean Air Institute)  Analyzing effectiveness of air quality management policies in Peru: improvements and challenges

#### 10:00 Coffee Break

#### 10:30 Amphitheater

## Exhaust and non-exhaust emissions from transport modes: measurements and modelling

Chairmen: Leonidas Ntziachristos (LAT/AUTH, Greece) and Jürgen Blassnegger (TUG, Austria)

Vehicle emission model for traffic simulations

*Ligterink Norbert (TNO, Netherlands)* 

Numerical investigation of diesel particulate matters in the exhaust tailpipe

Talebizadeh Pouyan (Amirkabir University of Technology, Iran)

The relative importance of tailpipe and non-tailpipe emissions on the oxidative potential of ambient particles in Los Angeles, CA

Shirmohammadi Farimah (University of Southern California, USA)

Elucidating the origin of the enrichment in aromatic compounds in Paris megacity atmosphere Salameh Thérèse (LISA, France)

Effect of Lane Closure on Vehicle Trajectories and Emissions: Simulation and Real-World Evaluation

Hartmann Martin (Institute for Transportation Research and Education, North Carolina State University, USA)

Laboratory and Field Measurements of Solid Particle Number Concentration

Tritscher Torsten (TSI GmbH, Germany)

#### 10:30 Room B

#### Real driving emissions (RDE)

**Chairwoman: Dilara Panagiota (JRC, European Commission)** 

Quality Assurance of PEMS Emissions Data aimed for the Development of Real-world Vehicle Emission Factors

Katsis Petros (EMISIA S.A., Greece and School of Civil Engineering, University of Queensland, Australia)

Variations of real world NOx emissions of diesel Euro 5 and 6 light-duty vehicles Kadijk Gerrit (TNO, Netherlands)

How vehicle emissions vary through the day, week and year: Evidence from telematics data Luc Pellecuer (Département de génie de la construction, École de technologie supérieure, Canada)

Exhaust emissions from in-service inland waterways vessels

Pillot Didier (IFSTTAR, France)

Real driving emissions as a determinant for the sustainable transport system development Merkisz Jerzy (Poznan University of Technology, Poland)

#### 10:30 Room C

## Environmental legislation, green mobility and teleworking

Chairman: Maria-Cristina Galassi (JRC, European Commission)

Amending EU Regulations 443/2009 and 510/2011 on CO2 emissions from Light Duty Vehicles following the introduction of the WLTP

Pavlovic Jelica (European Commission, Joint Research Centre, Italy)

On the potential for lightweight electric vehicles to facilitate one-way trips in and around city centres

R. Mounce (Centre for Transport Research, University of Aberdeen, UK)

Developments on Eco-innovations: procedure and calculation examples

Malfettani Stefano (European Commission, Joint Research Centre, Italy)

## 10:30 Room D

## **Networking event**

Networking event with the opportunity to present your organization, project ideas and your skills

The French National Contact Point – Transport (France)

#### 12:30 Lunch Break

13:30 Poster session - Rochdi Trigui (IFSTTAR, France) and Didier Pillot (IFSTTAR, France)

#### 14:30 Amphitheater

## Exhaust and non-exhaust emissions from transport modes: measurements and modelling

Chairmen: Norbert Ligterink (TNO, NL) and Nikolas Moussiopoulos (LHTEE/AUTH, Greece)

PM10 non-exhaust emission factors from tunnel measurements using a novel approach accounting for wall deposition and resuspension

Ulrich Uhrner (Traffic & Environment, IVT, Graz University of Technology, Austria)

Effect of measurement protocol on organic aerosol measurements of exhaust emissions from gasoline and diesel vehicles

Kim Youngseob (CEREA, France)

Urban Taxis and their contribution to the air pollution and CO2 emission: Case study of Singapore

Arimbi Jinca (TUM CREATE, Singapore)

Dilution and temperature effects on ultrafine particle emissions at the exhaust outlet of Diesel and gasoline passenger cars

Louis Cédric (IFSTTAR, France)

VOC emissions from the vehicle evaporation process: species and underestimation

Man Hanyang, School of Environment, Tsinghua University (China)

Uncertainty estimation of road transportation emissions at metropolitan scale

Chen Ruiwei (CEREA, France)

#### 14:30 Room B

### **Emission Control Technologies of primary air pollutants**

Chairmen: Asif Faiz (FA, USA) and Tim Wallington (Ford Motor Company, USA)

Low-temperature catalytic oxidation of vinyl chloride emission over Ru modified Co3O4 catalysts

Chao Wang (East China University of Science and Technology, China)

Development of a resistive soot sensor

Grondin Didier (IRCELYON, France)

Performance of in-use buses retrofitted with diesel particle filters

Rafael Fleischman (Technion - Israel Institute of Technology, Israel)

Active Diesel Particulate Filters and Nitrogen Dioxide Emission Limits

Potential of In-Motion-Charging buses for the Electrification of Urban Bus Lines

Fabian Bergk (ifeu – Institut für Energie, Germany)

#### 14:30 Room C

# Tutorial on modelling and energy management of hybrid electric vehicles coping with environmental issues

#### Part 1 – Modelling

Alain Bouscayrol (Lille University - MEGEVH Network, France)

- Structural and functional descriptions / Backwards and forwards approaches
- Different modeling objectives / Graphical descriptions
- Requirements for energy management of HEVs

#### 14:30 - 17:00 Room D

#### **ROUND TABLE**

Air pollution in the cities

Air quality improvement for the well-being of citizens

#### Moderator: Michel DEPROST (Editor-in-Chief Enviscope, France)

Debate involving journalists, scientific and political personalities (in French):

- Actions for the present and the future based on the following topics: air quality monitoring, health and environmental impacts, new fuels, abatement devices and technologies of emissions, urban traffic management, ...
- How to act on the citizen behaviors to reduce health, environmental and climatic impacts of pollutant emissions?

## **Participants:**

- Marie-Blanche Personnaz (General Directorate, Air Rhône Alpes)
- Bernard Garnier (President ATMO France)
- Laurent Gagnepain (ADEME, France) / Salah KHARDI (IFSTTAR, France)
- Gilles Vesco (Responsible for Soft mobility in Grand-Lyon; Inventor of Velo'Ov)
- Lionel Brard (Deputy Mayor of Valence France, Vice-President of the Urbail Community of Valence Romans Sud-Isère, Former President of "France Nature Environnement")
- Eric Wiart (Municipal Councillor Urban logistics and mobility, Grenoble)

#### 16:00 Coffee Break

## 16:30 Amphitheater

#### Air quality measurement, monitoring and modelling

#### Chairmen: Zissis Samaras (LAT/AUTH, Greece) and Peter Sturm (TUG, Austria)

Wireless sensor networks deployment for air pollution monitoring

Boubrima Ahmed (URBANET, France)

Coupling traffic and emission models: dynamic driving speed for emissions assessment

*Lejri Delphine (IFSTTAR-ENTPE, France)* 

Traffic-related and meteorological influences on air pollutant concentrations at an urban background station in Berlin during BÄRLIN2014

Schäfer Klaus (Karlsruhe Institute of Technology, Institute of Meteorology and Climate Research, Department of Atmospheric Environmental Research, Germany)

Evaluation of Black Carbon sources and geographical origins in Lorraine: multi-site approach and near real time data

Petit Jean-Eudes (Air Lorraine, France)

#### 16:30 Room B

### **Emission Control Technologies of primary air pollutants**

## Chairmen: Marc Lejeune (LUTB / Renault Trucks, France) and Asif Faiz (FA, USA)

Impact of engine warm-up and DPF active regeneration on regulated & unregulated emissions of a Euro 6 Diesel vehicle equipped with urea SCR catalyst

Leblanc Mickaël (IFP Energies Nouvelles, France)

Active Diesel Particulate Filters and Nitrogen Dioxide Emission Limits

Ibrahim Osama (Department of Mechanical Engineering, College of Engineering & Petroleum, Kuwait University, Kuwait)

Real time measurements of VOCs by transportable mass spectrometry using chemical ionization methods: a breakthrough innovative product for air quality analysis

Leprovost Julien (AlyXan, France)

A simplified temperature model for the three way catalytic converter

Varun Pandey (IFSTTAR, France)

#### 16:30 Room B

## Transport and non-transport emission interactions **Human exposure and health impacts**

## Chairmen: Yinon Rudich (Weizmann Institute, Israel) and Maria-Cristina Galassi (JRC, EC)

Effective air quality management: lessons from Latin America

Enriquez Santiago (The World Bank, USA)

Possible health effects of repeated exposures to re-suspended urban dust: the effect of nontailpipe emissions

Rudich Yinon (Weizmann Institute of Science, Israel)

Evaluation of exposure to particulate air pollution and its lung deposition among cyclists in the Perth Metropolitan Area

Shrestha Anu (Curtin University, Australia)

New compact technology for cabin air purification

Lamaa Lina (Brochier Technologies, France)

Does air pollution modify the impact of aircraft noise on mortality from cardiovascular disease? Results of an ecological study in France

Evrard Anne-Sophie (IFSTTAR, France)

#### 16:30 Room C

# Tutorial on modelling and energy management of hybrid electric vehicles coping with environmental issues

## Part 2 - Energy Management

## Rochdi Trigui (IFSTTAR - MEGEVH Network, France)

- Energy management definition
- Rule based approaches
- Optimization based approaches
- From offline assessment to online implementation
- Pollutant emissions as constraints
- Pollutant emissions as part of the optimization

#### 16:30 Room D

## PRESS CONFERENCE

# 18:00 End of day 2 sessions

Departure from conference venue to conference dinner (coach organized)

## **19:00 - GALA DINNER**

## Day 3: Thursday 26th May 2016

8:00 Registration - coffee

## **PLENARY SESSION (Amphitheater)**

## Chairman: Christian George (IRCELYON, France) and Ernesto Sanchez-Triana (World Bank, USA)

8:30 Dr Yewande Awe (World Bank, Washington DC, USA)

The World Bank's work on "Clean air and healthy lungs"

9:00 Pr Sergio Sanchez (CEO and Executive Director - Clean Air Institute)

Effective air quality management: lessons from Latin America

9:30 Pr Yinon Rudich (Department of Earth and Planetary Sciences, Weizmann Institute, Israel)

Health effects of repeated exposures to re-suspended urban dust

#### 10:00 Coffee Break

#### 10:30 Amphitheater

#### Real driving emissions (RDE)

## Chairmen: Laurent Gagnepain (ADEME, France) and Pierre Bonnel (JRC, European Commission)

A new approach for systematic use of PEMS data in emission simulation

Claus Matzer (Technical University of Graz, Austria)

Real life emissions of Euro 6 diesel cars and operation of emission control systems

Cuenot Francois (Transport and Environment, Belgium)

Real-world driving cycles for light-duty vehicles in the Netherlands

Geilenkirchen Gerben (Netherlands Environmental Assessment Agency – PBL, Netherlands)

Modelling the effect on air quality of Euro 6 emission factor scenarios

Toenges-Schuller Nicola (AVISO GmbH, Germany)

Recent remote sensing measurements of emissions from heavy-duty buses and passenger cars in Sweden

Jerksjö Martin (IVL Swedish Environmental Research Institute, Sweden)

#### 10:30 Room B

#### Air quality measurement, monitoring and modelling

#### **Chairman: Tim Wallington (Ford Motor Company, USA)**

Investigating the influence of the calibration and validation of cell-transmission traffic flow model on average-speed based emissions prediction

Sayegh Arwa (University of Leeds, United Kingdom)

Urbain air: An operational air quality management tool at high resolution for cities

Galineau Julien (NUMTECH, France)

Air-noise observatory regional and local scale exposure to air and noise pollution

Didier Chapuis (Air Rhône-Alpes, France)

Investigation of Volatile Organic Compounds Exposure inside Vehicle Cabins in China Xu Bin (Tongji University, Shanghai - China)

Exposure Analysis in Pearl River Delta (PRD) Based on Land Use Regression (LUR)

Xiaofan Yang (School of Environment, Tsinghua University, Beijing, China)

#### 10:30 Room C

## Transport, energy consumption and Greenhouse Gas emissions

Chairman: Nikolas Moussiopoulos (LHTEE/AUTH, Greece)

Quantification of the effect of WLTP introduction on CO2 emissions from passenger cars

\*Tsokolis Dimitris (Laboratory of Applied Thermodynamics, Greece)\*

Transport energy consumption in Tunisia: growth which needs to be stopped

Harizi Besma (High School of Business Tunis, University of Manouba, Tunisia)

The validation of CO2MPAS tool for supporting the introduction of WLTP in the European CO2 certification scheme

Fontaras Georgios (European Commission, Joint Reasearch Centre, Italy)

Real-world driving, energy demand and emissions of electrified vehicles

Kugler Ulrike (German Aerospace Center, Germany)

Greenhouse gas emissions from heavy duty vehicles using upgraded biogas as a fuel

Winther Morten (Department of Environmental Science, Aarhus University, Denmark)

#### 10:30 Room D

## Exhaust and non-exhaust emissions from transport modes: measurements and modelling

**Chairwoman: Barbara D'Anna (Ircelyon, France)** 

MOVES-Matrix Energy Consumption and Emission Modeling Applied to Individual Vehicles

Liu Haobing (Georgia Institute of Technology, USA)

Calculating emissions from road transport on a street level with COPERT4 and COPERT street level, a case study

Kouridis Chariton (EMISIA SA, Greece)

An investigation of evaporative VOC emissions from petrol light duty vehicles in Europe using different oxygenated fuels

Mellios Giorgos (EMISIA SA, Greece)

Physical characterization of fine and ultrafine particle emissions from non-exhaust road transport in urban and suburban areas. New project development

Khardi Salah (IFSTTAR, France)

Experiences and Results with different PEMS

J. Czerwinski (University of Applied Sciences, Switzerland)

Quantifying the air pollutants from construction and service life of roads

Younes Mohamed (Menoufia University, Egypt)

#### 12:30 Lunch Break

#### 14:00 Amphitheater

## Real driving emissions (RDE)

Chairmen: Pr Sergio Sanchez (Clean Air Institute) and Harikishan Perugu (Univ. of Cincinnati, California Air Resources Board, USA)

Measurement of late-model diesel automobile real driving emissions of reactive nitrogen compounds with on-board FTIR analyzer

Vojtisek Michal (Czech Technical University in Prague, Czech Republic)

Modelling exhaust emissions of normal driving and crossings, respectively, using the PHEM model

Janhäll Sara (Swedish National Road and Transport Research Institute, Sweden)

High-resolution mapping of vehicular emissions for the entire municipality of Beijing based on real-world dynamic traffic data

Yang Daoyuan (State Key Joint Laboratory of Environment Simulation and Pollution Control, Tsinghua University, China)

**Experiences and Results with different PEMS** 

J. Czerwinski (University of Applied Sciences, Switzerland)

Why do diesel cars emit more NOX on the road than during certification?

Bart Degraeuwe (European Commission, JRC - Institute for Environment and Sustainability, Air and Climate Unit, Italy)

Study of Traffic Real Driving Emissions in Madrid in 2015 and conclusions

De La Fuente Josefina (Remote Sensing Laboratory, Spain)

#### 14:00 Room B

#### Air quality measurement, monitoring and modelling

**Chairman: Aurélie Charron (IFSTTAR, France)** 

Ultrafine particle measurement and characterization for air quality monitoring

E. Zimmermann (CEA, France)

Assessment of the area affected by particulate matter generated by freight transportation over unpaved roads using computational fluid dynamics

Prato Daniel (Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico)

Dust absorption performance of urban trees in roadsides of Ho Chi Minh city

Huynh Trong Nguyen (Ho Chi Minh City University of Technology, Vietnam)

Influence of Gaps Between Buildings on Air Quality in Cities, Two Case Studies

Gruber Karin (consulting gruber, Austria)

Analysing impacts of intense ethanol fuel use on urban VOCs burden and composition

Dominutti Pamela (Department of Atmospheric Sciences - University of São Paulo, Brazil)

Determination of the influence of meteorological parameters on the ambient VOC concentrations in an industrial town located Aegean coast of Turkey

Doğan Güray (Akdeniz University, Turkey)

#### 14:00 Room C

#### **Economic impacts and technological instruments**

Chairman: Rochdi Trigui (IFSTTAR, France)

Why Own a Hybrid? A Global Total Cost of Ownership Analysis for the Private and Company Car Driver

Palmer Kate (University of Leeds, United Kingdom)

Personal mobility choices and climate change: which incentives are effective?

Raux Charles (Laboratoire d'économie des transports, France)

Economies of scale and density in the public rood transport sector in Tunisia

Ezghani Amine (Department of Management, University of Sfax, Tunisia)

Can electric delivery vans compete with internal combustion engine ones? A constraint analysis

Camilleri Pierre (IFSTTAR University of Paris-Est, France)

Parametric study on trajectory optimization

Setareh Javanmardi (IFSTTAR, France)

An Investigation for the Fuel Price Escalations on Optimum Speed in Maritime Transportation

Eda Turan (Yildiz Technical University, Turkey)

#### 15:45 Coffee Break

#### 15:45 - 16:30 Amphitheater

## **TAP 2016 CLOSING PLENARY SESSION**

Chairman: Thomas Bütler (Automotive Powertrain Technologies Laboratory, EMPA, Switzerland) + others to be confirmed

# POSTER SESSION 1

Day 1: Tuesday 24<sup>th</sup> May 2016 from 13:30 (for 24 hours)

Title	Author				
ERMES - Providing Consolidate Emissions Factors for European Road Transport	M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC), Italy )				
CadnaA Model and GIS (Case Study: IKIA Airport)	Kiani Sadr Maryam (Islamic Azad University of Hamedan, Iran)				
Light Duty Vehicle Emission Modelling for Indian Cities: Application of US-EPA'S MOVES Model in Hyderabad, India	Perugu Harikishan (Univ. of Cincinnati, USA)				
Study of NH3- Standard SCR reactions over a commercial catalyst on powder and mini-SCRF forms	Molina Gonzalez Sonia (IRCELYON, France)				
NOX Emission Performance of Vans in Real Urban Driving Using A Remote Sensing Device	Rushton Christopher (Institute for Transport Studies, University of Leeds, United Kingdom)				
Fe zeolite supported catalysts for the SCR-NH3 reaction	Anguita Paola (IRCELYON, France)				
Methods to comply with sulphur regulation for shipping and resulting particle emissions	Fridell Erik (IVL Swedish Environmental Research Institute, Sweden)				
Impact of aftertreatment device and driving conditions on PAHs, BTEX, Carbonyl compounds, black carbon, ultrafine particle and NO2 emissions for Euro 5 Diesel and gasoline vehicles	Liu Yao (IFSTTAR, France)				
Manganese-based catalysts for toluene combustion	Sihaib Zakaria (IRCELYON, France)				
VOC emissions from the vehicle evaporation process: species and underestimation	Man Hanyang (School of Environment, Tsinghua University, China)				
A semi-empirical comparison of CO2 emissions and energy demands of vehicles under the NEDC and WLTP type approval test procedures	Pavlovic Jelica (European Commission, Joint Research Centre, Italy)				
Identification of anthropogenic and natural sources of atmospheric particulate matter and trace metals in Constantine, Algeria	Ali-Khodja Hocine (Université des Frères Mentouri, Algeria)				
Mixing state and size distribution of aerosols during the tropospheric evolution of urban and industrial plumes	Deboudt Karine (ULCO-LPCA, France)				
The interactions of the Exhaust Ultrafine Particle with the vehicle near-wake flow	Mehel Amine (Laboratoire de l'Ecole Supérieure des Techniques Aéronautiques et de Construction Automobile, France)				

Assessment of traffic congestion in arterial roads of Tunisian Metropolitan City	Benhassine Sana (Ecole Supérieure Commerce Tunis, Tunisia)		
Effect of Road Grade, Vehicle Speed and Vehicle Types on NO2 Emission in Urban Roads in Jordan	Al-Rifai Jawad (Philadelphia University, Jordan)		
Traffic emissions study and development of a legal framework in Spain	De La Fuente Josefina (Technet, sostenibilidad en transporte, Spain)		
Improved catalyst for decreasing methane emissions from natural gas vehicles	Caravaggio Gianni (Natural Resources Canada, Canada)		
Metrological characterization of a remote sensing equipment for on-road emission measurements: Considerations for detecting high-emitter vehicles	Pujadas Manuel (Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas, Spain)		
A Combined Method of PAMS and Modelling to Quantify the Emission Benefits of Switching to Hybrid Vehicles in Taxi Fleets	Riley Richard (University of Leeds, United Kingdom)		
Space, transport and fuel: District of Tunis	Azaiez Mohamed (Faculty of Economics and management, Tunisia)		
Empirical study for absolute relation between GDP per capita and CO2 emissions from transportation, industrialization and an energy mix	Akter Shamema (Bangladesh Economic Association, Bangladesh)		
Pre-normative Research on E-mobility: the new European Interoperability Centre	M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC, Italy)		

# POSTER SESSION 2

# Day 2: Wednesday 25th May 2016 from 13:30 (for 24 hours)

Title	Author				
ERMES - Providing Consolidate Emissions Factors for European Road Transport	M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC), Italy )				
GRETA: Gridding Emission Tool for ArcGIS	Schneider Christiane (AVISO GmbH, Germany)				
Output growth, energy consumption and reduction potential of CO2 emission in Pakistan transport sector	Ahmad Izhar (China Center for Energy Economics Research, Xiamen University, China)				
Effects of Alternative Drivetrain Technologies and -Fuels on CO2-Emissions from Road Traffic in Germany	Piasecki Conrad (Bundesanstalt für Straßenwesen, Germany)				
Evolution of traffic related air pollutants in Veszprém County over the past 15 years	Georgina Nagy (University of Pannonia, Hungary)				
Non-Intrusive Reduced Basis Methods Applied to Outdoor Pollutant Transport Models	Hammond Janelle Katharine (Laboratoire Instrumentation, Simulation et Informatique Scientifique, France)				
PMx traffic resuspension estimation over a Milan area domain	Pepe Nicola (Politecnico di Milano, Italy)				
Impact of train braking systems on particle levels in the Paris subway	Molle Romain (RATP, France)				
Polybrominated Diphenyl Ethers (PBDEs) Levels in Indoor Dust	Basaran Bilgehan (Dept. of Environmental Engineering, Kocaeli University, Turkey)				
Risk estimation of halogenated POPs in indoor dust in an industrialized city	Civan Mihriban (Kocaeli University, Turkey)				
Analysis of spatiotemporal ozone concentrations considering traffic flows and solar radiations in Seoul, Korea	Kim Youngkook (Youngkook Kim, South Korea)				
Photocatalytic Oxidation of VOCs for Cleaning Vehicle Cabin Air	M. Bouhatmi (IRCELYON, France)				
Contribution of traffic to local PM10 concentrations in urban space? example of Wrocław, SW Poland	Muskała Piotr (Department of Climatology, University of Wrocław, Poland)				
Real world performance of ventilation systems for reducing nitrogen oxides or particulate matter levels in road tunnels	Vidal Bruno (CETU, France)				
Innovative and efficient novel smart sensors for air pollution monitoring in urban area	Fertier Laurent (ECOLOGICSENSE, France)				

Comparative study of three digestion methods for airborne PM10-bound metallic elements in an urban site	Ali-Khodja Hocine (Université des Frères Mentouri-Constantine, Algeria)				
Monitoring, assessing, and following up on people's health of air pollution emissions from transport in urban area in Moldova	Stratulat Tatiana (Grigori Friptuleac, Moldova)				
Estimation of atmospheric pollutant emissions by transport at Mytilene, Greece, during the tourist season	Kotrika Anna (Inst. for Environmental Research and Sustainable Development, Greece)				
Sustainability evaluation of electric taxi fleet in the city of Poznan	Merkisz-Guranowska Agnieszka (Poznan University of Technology, Poland)				
Development of Eco-Friendly Vehicle Choice Model	Hahn Jin-Seok (Hye Ran Kim, South Korea)				
Pre-normative Research on E-mobility: the new European Interoperability Centre	M. C. Galassi (Institute for Energy and Transport of the Joint Research Centre (EC, DG JRC, Italy)				

# Timetable summary

Day 1 Tuesday 24 <sup>th</sup> May 2016	8:00	8:45-10:30	10:30- 10:45	10:45-12:30	12:30- 14:30	13:30-14:30	14:30-16:00	16:00- 16:30	16:30-18:00	19:30
	Registration Coffee	Opening session	Coffee	Scientific	ıch	Poster	Scientific	Coffee	Scientific sessions (A, B, C)	Welcome
		Plenary session (A)	Break	sessions (A, B, C)	Lunch	session 1 (hall)	sessions (A, B, C)	Break	Press conference (D)	Cocktail
	Press conference									
	8:00	8:30-10:00	10:00- 10:30	10:30-12:30	12:30- 14:30	13:30-14:30	14:30-16:00	16:00- 16:30	16:30-18:00	19:30
Day 2 Wednesday 25 <sup>th</sup> May 2016	Registration Coffee	Plenary session (A)	Coffee Break	Scientific sessions (A, B, C)	Lunch	Poster session 2 (hall)	Scientific sessions (A, B, C) Special session HEV (Room C)	Coffee Break	Scientific sessions (A, B, C) Special session HEV (Room C)	Gala Dinner
Networking event - Room D  Round table (private session - Room D)  Press conference							om D)			
Day 3 Thursday 26 <sup>th</sup> May 2016	8:00	9:00-10:00	10:00- 10:30	10:30-12:30	12:30- 14:00	14:00-15:30	15:30- 15:45	15:45-16:30		
	Registration Coffee	Plenary Session (A)	Coffee Break	Scientific sessions (A, B, C)	Lunch	Scientific sessions (A, B, C)	Coffee Break	Closing plenary session (A)		

A: Amphitheater - B, C and D: Meeting rooms