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ISRM

PADOVA 2026

**2nd RILEM International Symposium
on Bituminous Materials**

16-18th June 2026



PROGRAM

Welcome

It is our pleasure to present the **2nd RILEM International Symposium on Bituminous Materials – ISBM2026**, held in Padova, Italy, on June 16-18th, 2026. Hosted by the Department of Civil, Environmental and Architectural Engineering of the University of Padova, with the support of the University of Parma and the University of New Hampshire, this RILEM (International Union of Laboratories and Experts in Construction Materials, Systems and Structures) symposium brings together researchers, practitioners, and stakeholders from across the world to discuss recent scientific advances and emerging engineering solutions in the field of bituminous materials and pavement systems. Following the first edition in Lyon in 2020, ISBM2026 confirms the role of this symposium as a distinctive international forum dedicated to the fundamental understanding, technological development, and practical application of bituminous materials.

ISBM2026 is organized within the framework of RILEM Cluster F, Bituminous Materials and Polymers, whose activities continue to promote cooperation across disciplines and boundaries among academia, industry, and public agencies. The ISBM series has its origin in long standing series of RILEM conferences topics of bituminous materials and cracking in pavements, that have been organized steadily since 1970s. In this context, the symposium serves not only as a venue for the presentation of new research but also as a platform for the scientific dialogue promoted by RILEM Technical Committees. Dedicated sessions of the conference highlight contributions connected with the ongoing activities of the current cluster F technical committees:

- 295-FBB : Fingerprinting Bituminous Binders using Physico-chemical Analysis
- 307-PPB : Physicochemical Effects of Polymers in Bitumen
- 308-PAR : Performance-based Asphalt Recycling
- 316-FEE : Fume Emissions Evaluation for Asphalt Materials
- 323-APD : Alternative Paving Materials - Design and Performance
- 325-APS : Alternative Paving Materials - Sustainability
- 331-MWP: Mechanical Wave Propagation to Characterize Bituminous Mixtures

The papers provide an overview of current developments in the field, giving remarkable breadth of the current research and the growing integration of materials science, mechanics, digitalization, sustainability, and pavement infrastructure performance. The main themes are: advanced chemical, physical (spectroscopic, microstructural), mechanical characterization of binders; bio-binders and bio-based constituents; reclaimed asphalt pavement, aging, rejuvenation, hot recycling, and warm-mix technologies; cold recycling, cement-bitumen and emulsion systems; performance and durability of modified, recycled, and alternative materials; advanced testing, laboratory and field evaluation; modelling, machine learning, and numerical simulation; functional and resilient pavement technologies; and environmental impact, emissions, and LCA.

The symposium addresses major scientific and technological challenges associated with bituminous materials and pavement structures at a time when the infrastructure sector is called upon to respond to urgent environmental, economic, and societal demands. Durability, circularity, energy efficiency, safety, emissions mitigation, and resilience under evolving climatic conditions are no longer separate concerns; they are increasingly interdependent dimensions of the same research and engineering agenda. The contributions presented at ISBM2026 reflect this evolution.

We wish to express our gratitude to the sponsors, the supporting associations - Societa' Italiana Infrastrutture Viarie and the European Asphalt Technology Association - and all colleagues and collaborators who helped make ISBM2026 possible. We hope that the papers collected in these two volumes will serve as a useful reference for researchers, engineers, and decision-makers, and that they will stimulate further collaboration and innovation in the science and engineering of bituminous materials.

The Conference Chairs

Marco Pasetto, Gabriele Tebaldi, Eshan Dave

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General Info

OPENING CEREMONY and KEYNOTE LECTURES (3)

Palazzo Bo - via 8 Febbraio, 2 - 35122 Padova, Italy

The congress opening ceremony will take place in the Aula Magna of the historic Palazzo Bo, the centuries-old seat of the University of Padua, one of the world's oldest universities, founded in 1222.



CONFERENCE SESSIONS and CLOSING CEREMONY - 17th, 18th June 2026

Padova Congress - via Niccolò Tommaseo, 59 - 35131 Padova, Italy

The agenda at Padova Conference includes 24 parallel oral (podium) sessions, 2 poster sessions and a RILEM Youth Competition poster session.



RILEM TCs meetings - 15th, 16th, 19th June 2026

Department ICEA - via Marzolo, 9 - 35131 Padova, Italy

RILEM TCs meetings will be held before and after the Symposium at the Department of Civil, Environmental and Architectural Engineering (ICEA) of the University of Padova.



FAA-STAC Workshop - Airport Pavement Design & Evaluation Workshop

Department ICEA - Via Marzolo, 9 - 35131 Padova, Italy

Airport Pavement Design & Evaluation Workshop, under the auspices of United States' Federal Aviation Administration (FAA) and the French Direction Générale de l'Aviation Civile - Service Technique de l'Aviation Civile (STAC).

Scientific Contributions



Advanced characterization and analysis of bituminous materials

Fingerprint and chemical techniques,
physio-chemical characterization, fume
emissions assessment, etc.

Recycling of bituminous materials

Hot and cold recycling, performance-based methodologies, use of rejuvenators, binder availability from recycled asphalt pavement, etc.



Alternative materials and sustainability

Additives, modifiers, environmental and human health impacts, life cycle assessment, environmental product declarations, climate change, energy harvesting, etc.



Performance of materials

Mechanical, thermal, chemical and physical properties, mix-design, durability, etc.



Pavement design, testing and modeling

Accelerated pavement testing, structural evaluation, modeling, surface properties, vehicle-road interaction, non-destructive testing, back-analysis, etc.

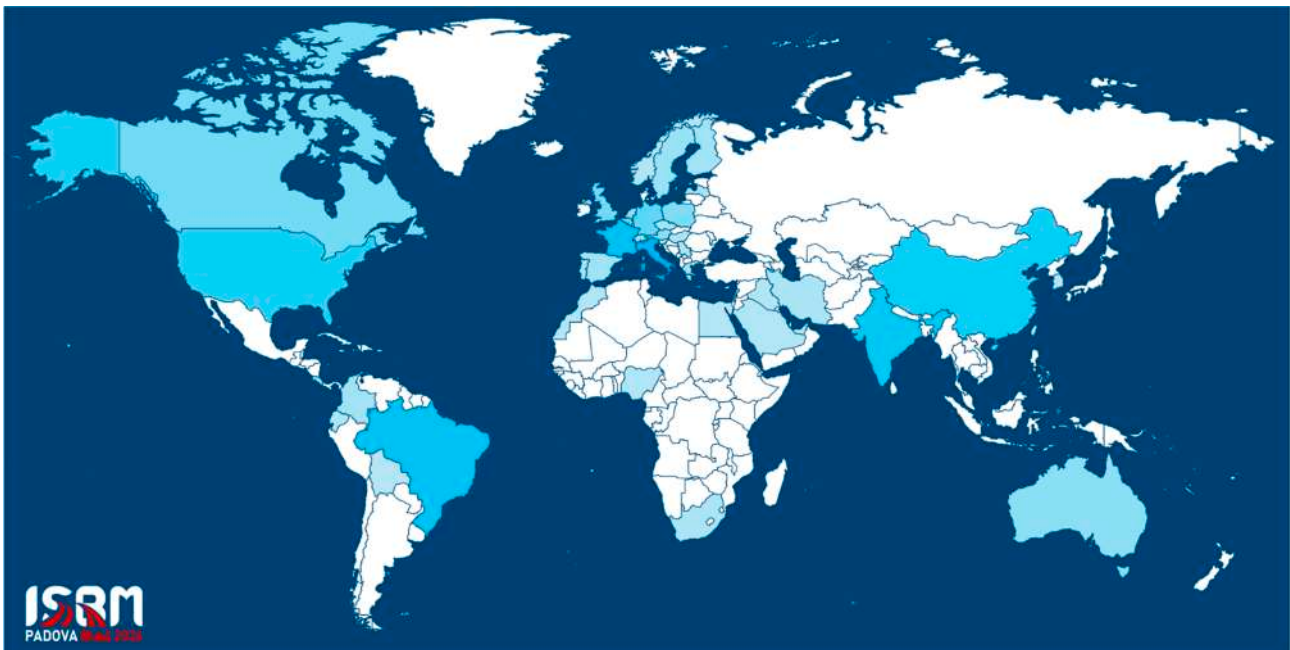


Advanced technologies and smart infrastructures

Innovative sensors, machine learning,
smart materials, smart city infrastructure,
data science, etc.

+250 papers

+ 600 Authors from +40 Countries

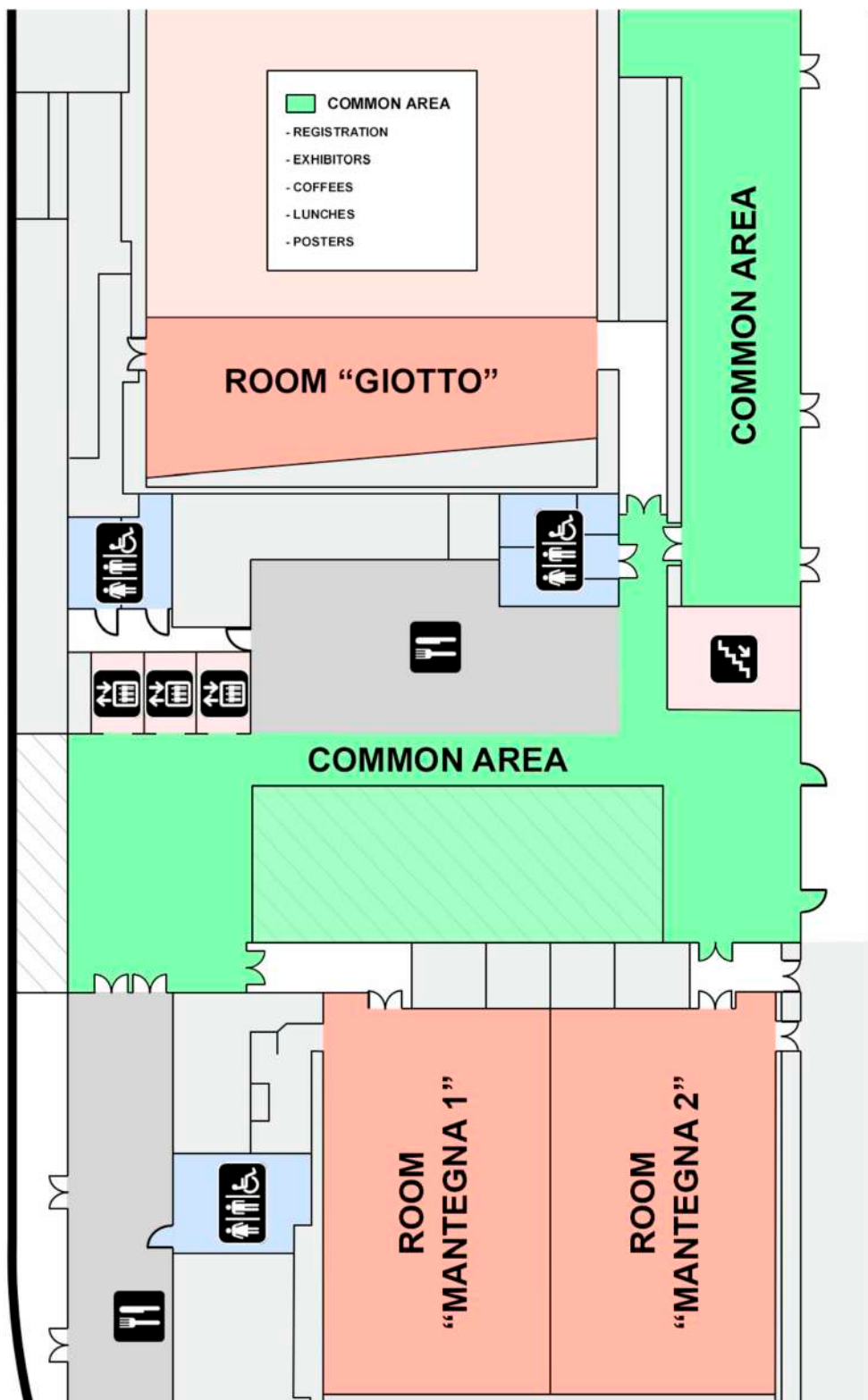


Program

	Monday, 15 th June, 2026	Tuesday, 16 th June, 2026	Wednesday, 17 th June, 2026	Thursday, 18 th June, 2026	Friday, 19 th June, 2026
Morning		TCs meetings <i>@ ICEA Department</i> TC 307-PPB TC 316-FEE TC 323-APD	3 parallel sessions <i>@ Padova Congress</i> S1 S2 S3 Coffee break 3 parallel sessions <i>@ Padova Congress</i> S4 S5 S6	3 parallel sessions <i>@ Padova Congress</i> S13 S14 S15 Coffee break 3 parallel sessions <i>@ Padova Congress</i> S16 S17 S18	TCs meetings <i>@ ICEA</i> TC 331-MWP FAA-STAC Workshop <i>@ ICEA</i>
Afternoon	TCs meetings <i>@ ICEA Department</i> TC 308-PAR	Plenary session <i>@ Palazzo Bo</i> Opening ceremony Keynote K1 Coffee break Plenary session <i>@ Palazzo Bo</i> Keynote K2 Keynote K3	3 parallel sessions <i>@ Padova Congress</i> S7 S8 S9 Coffee break 3 parallel sessions <i>@ Padova Congress</i> S10 S11 S12	3 parallel sessions <i>@ Padova Congress</i> S19 S20 S21 Coffee break 3 parallel sessions <i>@ Padova Congress</i> S22 S23 S24	
Evening		Registration Aperitivo / Light dinner <i>@ Palazzo della Ragione</i>	Lunch Poster session Plenary session <i>@ Padova Congress</i> RYC RILEM Youth Competition Wine & Cheese <i>@ Padova Congress</i>	Lunch Poster session Plenary session <i>@ Padova Congress</i> Closing ceremony Bus transfer Gala dinner <i>@ Villa Borromeo</i>	

- ICEA Department - via Marzolo, 9 - Padova
- Palazzo Bo - via 8 Febbraio 2 - Padova
- Padova Congress - via Niccolò Tommaseo 59 - Padova
- Palazzo della Ragione - Piazza delle Erbe - Padova
- Villa Borromeo - via della Provvidenza 61 - Sarmede di Rubano, Padova

Padova Congress – 3rd Floor



Day 1 – 16th June, 2026

@ Palazzo Bo

Welcome and Registration (from 12:00)

Registration will take place from 12:00 on the 1st floor of Palazzo Bo building, just in front of the Aula Magna entrance. Symposium material will be distributed during the registration.

Plenary session – 15:00-18:30, Aula Magna

Opening ceremony

Prof. Carlo Pellegrino

Vice-Rector for Buildings, University of Padova, Italy

Prof. Paolo Martelli

Rector, University of Parma, Italy

Prof. Andrea Giordano

Head of ICEA Department, University of Padova, Italy

Prof. Marco Pasetto

University of Padova, Italy

Prof. Gabriele Tebaldi

University of Parma, Italy

Prof. Eshan Dave

University of New Hampshire, United States – RILEM Cluster F Convenor

Keynote lectures



Keynote K1. The impact of Sourcing Raw Materials for the Built Environment: Is it Just About CO2?

Luca Valentini

University of Padova, Italy



Keynote K2. Asphalt Sustainability: From Recycling and Biomaterials to Policy-Making for Decarbonization

Kamilla Vasconcelos

University of São Paulo, Brazil



Keynote K3. Bituminous Material – New Ways to Uncover some Hidden Facts

Bernard Hofko

TU Wien, Austria

Day 2 – 17th June, 2026

@ Padova Congress

Parallel sessions

Session S1. Advanced Rheological, Molecular, and Mechanical Characterization of Bitumens and Modified Asphalt Binders

17th June 2026, 9:00-10:30, Room “Giotto”

Chair: **Cesare Sangiorgi**

Analysis of the efficacy of remixing highly polymer modified binder after polymer segregation

Greg White

Relationships between pavement performance and properties of recovered binders

Hilde Soenen, Xavier Carbonneau, Hanyu Zhang, Yuqing Zhang, Xiaohu Lu, Gordon Airey, Geoff Rowe

Development of a protocol for the evaluation of mastic viscosity using a DSR

João Crucho, Alexandros Margaritis, Annette Gail, Stefan Vansteenkiste

Effect of trimming process on measured shear modulus and phase angle of bituminous binders using dynamic shear rheometer

Jiqing Zhu, Maya Sheidaei, Joacim Lundberg

Correlation between conventional and rheological properties of polymer modified bitumen and analysis of their statistical distribution

Simona Česnauskienė, Audrius Vaitkus, Judita Škuldeckė, Ovidijus Šernas

Bending Beam Rheometer tests on complex bituminous binders, outcomes from RILEM TC 272-PIM TG1

Lucia Tsantilis, Davide Dalmazzo, Laurent Porot

Session S2. Advanced Chemical, Spectroscopic and Microstructural Characterization of Asphalt Binders

17th June 2026, 9:00-10:30, Room “Mantegna 1”

Chair: **Aikaterini Varveri**

Direct observation of bitumen internal microstructure using Atomic Force Microscopy: a novel methodological approach

Lemasson Dorian, Matthieu George, Philippe Dieudonné-George, Erwan Oliviero, Véronique Viguier, François Henn

FTIR-based decision rule for RAP classification based on PAH

Mohsen Motevalizadeh, Jens Wetekam, Konrad Mollenhauer

Mechanistic prediction of anchoring performance in modified bitumen using SEM morphometrics

Foad Ghasemi, Ehsan Yaghoubi, Rudi van Staden, Ali Rajabipour, Ramin Shahbazi

Utilisation of different microscopy techniques for evaluation of UV-induced changes in polymer-modified bitumen

Miftah Farid, Jan Król, Johan Blom

Quantification of the atomic force microscopy-based microstructure of bitumen: proof of concept

Miomir Miljković, Lidija Ržek, Niko Van den Brande, Johan Blom

Integrating DSC, HT-SimDist and NMR, to unravel wax crystallinity in bitumen

Ali Zain Ul Abadeen, Hilde Soenen, Johan Blom, Georgios Pipintakos

Session S3. Alternative Paving Materials - Design and Performance (TC 323-APD)

17th June 2026, 9:00-10:30, Room “Mantegna 2”

Chair: **Augusto Cannone Falchetto**

Laboratory and field performance of Australian dense graded asphalt incorporating tyre-derived crumb rubber and high RAP

Laszlo Petho

Enhancement of structural stability and mechanical properties of rubberized asphalt mixtures in dry and cold processes using pre-swollen waste crumb rubber

Nie Tian, Piergiorgio Tataranni, Meryem Boutgoulla, Kussai Alrini, Cesare Sangiorgi

Research on the road performance of double phase change self-regulating ultra-thin overlay asphalt mixture

Meng Guo, Xiaojun Cheng, Rui Zhang

Triaxial stress effects on the stiffness performance of rubber-plastic-modified asphalt mixtures for application in the base course layers

Neetu Gopakumar, Krishna Prapoorna Biligiri

Use of recycled waste plastics in asphalt pavements: first outcomes of the “Green Roads” project

Davide Cimenti, Davide Dalmazzo, Lucia Tsantilis, Orazio Baglieri, Ezio Santagata

Innovative asphalt solutions: integrating recycled shingles and ballast aggregates for sustainable pavements

Marco Pasetto, Bhaswati Bora, Giovanni Giacomello, Filippo Tabarin, Luca Florean, Rita Cimicata

Coffee Break

17th June 2026, 10:30-11:00, Common Area

Session S4. Advanced Rheological, Molecular, and Mechanical Characterization of Bitumens and Modified Asphalt Binders

17th June 2026, 11:00-12:30, Room “Giotto”

Chair: **Sayed Nahar**

Experimental study on the diffusion between aged and fresh binders using DSR tests

Andressa Cristina Borges Chaves, Flavien Geisler, Cédric Sauzéat, Salvatore Mangiafico, Simon Pouget

Functionalized biaxially oriented polypropylene (BOPP) modified binder: performance and phase separation assessment

Gustavo Pinheiro, Jessica Dipold, Anderson Zanardi, Kamilla Vasconcelos, Niklaus Wetter

Rheological and mechanical enhancement of asphalt binders using recycled low-density polyethylene (LDPE)

Nailton Silva Costa Mafra, Marcio Muniz de Farias

Assessment of the suitability of feedstocks from various crude oils for bitumen production

Kamil Niemyjski, Jakub Kamiński, Jacek Olszacki

Tracking five-year performance evolution in dike asphalt: insights from rheological indicators

Avishreshth Singh, Valeria Chi Valdespino, Lili Ma, Aikaterini Varveri

Durability study of polymer modified bitumen in bridge deck asphalt pavements

Xiaohu Lu, Bengt Sandman, Carl Hultin

Session S5. Performance and Durability of Modified, Recycled and Alternative Asphalt Materials

17th June 2026, 11:00-12:30, Room “Mantegna 1”

Chair: **Marco Pasetto**

Evaluation on performance of polymer modified guss asphalt mixtures

Dae-Wook Park, Tam Minh Phan, and Si-Hwan Kim

Temperature Sensitivity of Steel Slag Asphalt Mixtures: A Laboratory Evaluation

Christina Plati, Maria Tsakoumaki, Andreas Loizos

Time-dependent increase of interlayer bonding in asphalt layers reinforced with geocomposite interlayer

Piotr Jaskula, Cezary Szydlowski, Michał Gotos, Jacek Kawalec

A preliminary assessment of SMA modification due to post-accidents spills contamination and long-term tire wear

Marco Bruno, Yuheng Chen, Junyan Yi, Valeria Vignali, Claudio Lantieri

Waterproofing systems for ballasted technologies in railway tracks

Filippo G. Praticò, Vamsi. N.K. Mypati, Giuseppe Colicchio

Performance evaluation of Cement Grouted Asphalt Mixtures for high resistance pavements

Raúl Tauste-Martínez, Fernando Moreno-Navarro, Gema García-Travé, María del Carmen Rubio-Gámez

Session S6. Fingerprinting bituminous binders using physico-chemical analysis (TC 295-FBB)

17th June 2026, 11:00-12:30, Room “Mantegna 2”

Chair: **Bernhard Hofko**

A novel FTIR double-layer approach to binder diffusion: lessons learned and challenges

Georgios Pipintakos, Christina Makoundou, Antonio Roberto, Elena Romeo, Riccardo Monticelli, Wim Van den Bergh, Gabriele Tebaldi

Rheological and molecular characterization of bitumen modified with spent coffee grounds via DSR, FTIR, and ¹H-NMR

Stavros Kalampokis, Alexis D. Kouvelas, Johannes Mirwald, Jan Valentin, Bernhard Hofko, Ioannis N. Lykakis, Evangelos Manthos

Characterizing bitumen under pressure via ATR-FTIR spectroscopy

Jan Unterbuchsachner, Johannes Mirwald, Bernhard Hofko

FTIR characterization of binder

Jens Wetekam, Konrad Mollenhauer

Applicability of linear and modulated DSC for assessing polymers and aging in asphalt binder

Elaheh Nasiriamiri, Pejooan Tavassoti

Refining molecular configurations for accurate and reliable bitumen molecular dynamics simulations

Farhad Sakanlou, Marina Macchiagodena, Chiara Riccardi, Marco Pagliai, Massimo Losa

Lunch & Poster Session

17th June 2026, 12:30-14:00, Common Area

Session S7. Aging Effects , Rejuvenation and Hot Recycling

17th June 2026, 14:00-15:30, Room “Giotto”

Chair: **Christiane Raab**

Healing Capacity of Micro- and Macro-Cracks in Asphalt Mortars with Encapsulated Rejuvenators

María Paula Perilla-Bohórquez, Angelica Viana-Sepulveda, Silvia Caro, Jose L. Concha, Jose Norambuena-Contreras

First-year field aged binder results from a European In-situ Ageing Consortium (EurIAC)

G. Jacobs, W. Van den Bergh, C. Vuye, A. Singh, A. Varveri, M. Zaumanis, L. Poulidakos, E. Freitas, J. Mirwald, B. Hofko, E. Manthos, G. Pipintakos

Effect of asphalt binder modification type and aging severity on the thermal stability and glass-transition characteristics

Reem Hassan, Michael Elwardany, Helal Ezzat, Ahmed Awed, Waleed Zeiada, Alaa Gabr, Sherif El-Badawy

Chemical and Morphological Evolution of Polymer Networks in Bitumen during Aging: Insights from FTIR and Fluorescence Microscopy

V.T. Thushara, Athira Mangalath Shine, Sabine Leischner, Erik Kamratowsky, Thomas Köberle, J. Murali Krishnan

Comparing the anti-aging benefits of low-dose crumb rubber modified dense grade asphalt through the mixture-based Glover-Rowe parameter

Andrew Kidd, Greg White

In-situ UV ageing rate assessment of bituminous materials using fluorescence spectroscopy

Stefan Werkovits, Fabian Sprachowitz, Isidora Citic, Lucas Mortier, Hinrich Grothe

Session S8. Performance and Durability of Modified, Recycled and Alternative Asphalt Materials

17th June 2026, 14:00-15:30, Room “Mantegna 1”

Chair: **Emmanuel Chailleux**

Short-term mechanical behavior of gravel-emulsion mixtures compared to unbound granular materials

Zhi Chen, Cyrille Chazallon, Pierre Horny, Vincent Gaudefroy, Litao Geng

Homogeneity of recycled plastics in hot mix asphalt

Haosen Jing, Elena Romeo, Gabriele Tebaldi

Assessing the mechanical properties of emulsion-based asphalt mixtures at early age by impact resonance tests

Barbier Lucas, Mahmoudi Yasmina, Mangiafico Salvatore, Sauzéat Cédric

Towards sustainable railway sub-ballast: field trial with recycled asphalt pavement and plastomeric polymers

Mignini C., Berardi L., Liberato G. P., Scasserra G., Marradi A.

Study on the adhesion characteristics at the interface between rubber powder modified asphalt - steel slag

Meng Guo, Wei Wang, Lan Wang

Evaluation of milk of lime effects at pavement layers interface

Marco Grisendi, Elena Romeo, Gabriele Tebaldi

Session S9. Physicochemical Effects of Polymers in Bitumen (TC 307-PPB)

17th June 2026, 14:00-15:30, Room “Mantegna 2”

Chair: **Hinrich Grothe**

Influence of residue fillers and fine particles on extracted and recovered bitumen binders

Bowen Li, Lucas Vallaeys, Maximilian Lorenz, Johannes Mirwald, Bernhard Hofko

Rheological and chromatographic evaluation of polymer-modified bitumen ageing

Isabeau Kokken, Antonio Roberto, Martins Zaumanis, Martin Hugener, Sophie Stüwe, Johannes Mirwald, Wim Van den Bergh, Bernhard Hofko

Temperature-dependent effects of both polymers and waxes on rheological bitumen properties

Johannes Büchner, Jennifer Bötzel, Michael P. Wistuba, Maxi Mrusek

Fingerprinting of bituminous binders and mastics to assess workability

Annette Gail, Alexandros Margaritis, Nathalie Piérard, João Crucho, Stefan Vansteenkiste

UV and thermal-oxidative ageing of SBS-modified binders: an interlaboratory study of chemical and rheological response

Peng Lin, Gordon Airey, Johannes Buchner, Hinrich Grothe, Eyassu Hagos, Lakshmi Roja Kakumanu, Isabeau Kokken, Bowen Li, Xueyan Liu, Miomir Miljkovic, Lucas Mortier, Virginie Mouillet, Sayeda Nahar, Georgios Pipintakos, Judita Skultecke, Sandra Weigel, Rui Wu, Jiqing Zhu

Deconvolution analysis of epoxy-modified paving binders

Lili Ma, Sadaf Khalighi, Aikaterini Varveri

Coffee Break

17th June 2026, 15:30-16:00, Common Area

Session S10. Aging Effects , Rejuvenation and Hot Recycling

17th June 2026, 16:00-17:30, Room “Giotto”

Chair: **Salvatore Mangiafico**

Spray-on rejuvenators for sustainable asphalt pavement preservation: NCAT field evaluation

Amir Jafarmilajerdi, Raquel Moraes

Investigating asphalt mixtures performance using an operational-friendly long-term aging conditioning protocol

Ahmed Hassanien, Michael Elwardany

Rejuvenation mechanism of aged bitumen using epoxy resin and rejuvenators: A molecular perspective

Mengzhe Tao, Shisong Ren, Wim Van den Bergh

Effects of aging on the properties of asphalt binders and on the dosage of rejuvenating agents

Pedro Orlando Borges de Almeida Júnior, Luciano Pivoto Specht, Cleber Faccin, Jennifer Ilha Vendrusculo, Bethania Machado Correa

Effect of temperature and mixing time on active RAP binder ageing level

Wellington L. G. Ferreira, Bernard Hofko, Kamilla Vasconcelos

Multiscale evaluation of the fatigue-healing capacity of asphalt materials with encapsulated rejuvenators

Luisa F García-Ramírez, Angelica Viana-Sepulveda, Silvia Caro, Jose Norambuena-Contreras

Session S11. Warm Mix Asphalt and Half-Warm Technologies

17th June 2026, 16:00-17:30, Room “Mantegna 1”

Chair: **Maria del Carmen Rubio-Gámez**

Ravelling resistance of a warm porous asphalt containing reclaimed asphalt

Andrea Scarponi, Andrea Graziani, Andrea Grilli, Francesco Canestrari

Comparative evaluation of different warm mix asphalt technologies produced in laboratory and plant

Christiane Raab, Martin Hugener, Aybike Oengel, Rafiq Kakar

Influence of aging on low-temperature properties of warm mix asphalt (WMA) with use of highly SBS-modified bitumen (HiMA) and RAP

Marek Pszczola

Comparing half-warm asphalt mixtures produced using neat and nano-modified paving-heavy crude oil for low-volume traffic roads

Allex E. Alvarez, Leidy V. Espinosa, Evelyn Ovalles

Mechanical performance and toughness evaluation of warm mix asphalt binders modified with SBS/SEBS/SIS polymers

Meng-Hsin Kuo, Shih-Huang Chen, Putri Adhitana Paramitha, Hendriquita Karonsih Widyapsari, Ching-Tsung Hung, Sheng-Po Hsu, Dien Thanh Binh

Interlayer shear performance of geocomposites applied under WMA layers

Gilda Ferrotti, Fabrizio Cardone, Lorenzo Paolo Ingrassia, Francesco Canestrari

Session S12. Functional and Climate-Adaptive Pavement Technologies

17th June 2026, 16:00-17:30, Room “Mantegna 2”

Chair: **Fernando Moreno Navarro**

Different measurement methods with asphalt solar collectors support utilizing energy harvesting to mitigate urban heat island effect

Anne Mäkiranta, Birgitta Martinkauppi

Evaluating the cooling performance of high-albedo reflective pavements to mitigate urban heat islands in a tropical city

Larissa V. S. Ribas, José Roberto P. Santos, Verônica T. F. Castelo Branco

The effect of high-albedo pavements on pedestrian thermal comfort: a simulation study in a tropical urban environment

Larissa V. S. Ribas, José Roberto P. Santos, Verônica T. F. Castelo Branco

Experimental study for the design of a pavement solar collector with a porous asphalt concrete layer

Thomas Attia, Charlotte Delorme, Simon Pouget

Laboratory assessment of road pavement albedo to overcome field measurement variability

Marco Pasetto, Andrea Baliello, Emiliano Pasquini

Integrating sustainability and energy harvesting in asphalt materials: methodological framework and early insights from the ENHANCE project

Marco Pasetto, Andrea Baliello, Giovanni Giacomello, Jiri Koziorek, Nada Rapantova, Martin Mikolajek, Xiaoshu Lü, Birgitta Martinkauppi, Anne Mäkiranta, Jussi Kesikuru, Lucía Escudero Sartages, David Romero Sánchez, Mădălin Silion, Lucian Lumînăroiu

Plenary session

RYC – RILEM Youth Competition

17th June 2026, 17:30-18:30, Room “Giotto”

Chair: **Niki Trochoutsou**

Enhancing asphalt pavement albedo and surface cooling with a light-colored binder and aggregates

Chen Song

Thermomechanical behavior of conductive eRoads under diurnal thermal cycles: experimental investigation of strain evolution and visco-hyperelastic modeling

Daniel Lira Lopes Targino

Optimized protocol for performance testing of asphalt mixtures using the dynamic modulus and the cyclic fatigue test

Ahmed Hassanien

A probabilistic assessment of braking-induced surface damage under tyre-pavement contact

Débora Cardoso da Silva

Predicting and optimizing moisture resistance in bituminous mixtures: a response surface methodology approach

Sadiya Shaikh

Rheological degradation behaviors of bio-rejuvenated bitumen under thermal, UV, and moisture exposure

Shisong Ren

Biochar as a sustainable modifier for asphalt binders: a rheological assessment of source-dependent performance

Pedrina Vitória

Exploring the impact of oxidative activation of rubber-polyethylene elastomer on modified asphalt compatibility and rheological behavior

Yuzhao Han

Day 3 – 18th June, 2026

@ Padova Congress

Parallel sessions

Session S13. Bio-Binders, Biogenic Binder Materials Bio-based Additives and Fillers

18th June 2026, 9:00-10:30, Room “Giotto”

Chair: **Francesco Canestrari**

Biochar as an alternative filler for bitumen-stabilised materials

Daniel Grossegger, Christiane Raab, Jade Hurel

Effect of waste-derived hydrochars on reducing VOC and PAH emissions from bitumen fumes

Hongjun Dong, Chiara Riccardi, Federica Barontini, Monica Puccini, Massimo Losa

Rheological performance of lignin-based composite pellet-modified bitumen: a comparison of wet and dry modification methods

K. Lakshmi Roja, Gordon Airey, Anand Sreeram, Michael Wright, Umesh Parajuli, Neil Leake, Ankita Sikder, Ray Sandip, Bob Allen

Investigating the performance of asphalt mixtures incorporating waste wood biochar as a fine aggregate replacement

Ali Mohammed A Alghamdi, Gordon Airey, Anand Sreeram, K. Lakshmi Roja

Fatigue behaviour of hot and bio-warm bituminous mixtures at different temperatures

Sergio Hernán Manjarrés Paredes, Salvatore Mangiafico, Cédric Sauzéat, Julien Van Rompu, Vincent le Menec

Evaluation of bio-binder pre-mixing temperature and its influence on half-warm mix asphalt performance

V. Ude, V. Cordeiro, I. Ruiz-Riancho, P. Liu, A. Garcia

Session S14. Mechanical Wave Propagation to characterize bituminous mixtures (TC 331-MWP)

18th June 2026, 9:00-10:30, Room “Mantegna 1”

Chair: **Jean-Claude Carret**

Viscoelastic characterization of bituminous mixtures by impact resonance and tension-compression tests

Bezerra Ana Karoliny Lemos, Mahmoudi, Yasmina, Mangiafico Salvatore, Sauzéat Cédric

Assessment of inductive road pavements' structural behaviour using falling weight deflectometer

Fernando Dacio de Almeida, Guerra Ortiz, Maria Judith, Danial Arzjani, Jean-Claude Carret, Diego Ramirez Cardona

Influence of measurement speed on Traffic Speed Deflectometer (TSD) parameters: a hierarchical statistical evaluation

Sadiya Shaikh, Pahirangan Sivapatham, Tim Schroedter, Panujan Naguleswaran, Ankit Gupta

Comparative study of hammer type on frequency response in bituminous mixture impact resonance test

Bezerra Ana Karoliny Lemos, Carret Jean-Claude, Mangiafico Salvatore, Sauzéat Cédric

Evaluation of the effect of test setup conditions on the frequency response function and resonant frequency of bituminous mixtures in flexural mode

Mauro José da Silva Filho, Lucas de Albuquerque Lima Babadopulos, Jean-Claude Carret, Jorge Barbosa Soares

Bitumen stabilized material performance evaluation using accelerated pavement testing

Leonardo Lunkes Wagner, William Fedrigo, Washington Peres Núñez, Lélío Antônio Teixeira Brito

Session S15. Reclaimed Asphalt Pavement and Binder Behavior, High-RAP Mixtures and Performance Evaluation

18th June 2026, 9:00-10:30, Room “Mantegna 2”

Chair: **Alan Carter**

Prediction of blending rate between virgin and RAP constituents using numerical simulation

Elio Ziade, Fateh Fakhari Tehrani, Anne Millien, Joseph Absi, Christophe Petit

Low-temperature cracking in RAP-HPAC asphalt mixtures: insights from extended BBR, DCT, and TSRST

Akshay Waim, Idalgardy Costa, Leila Hashemian

Method of separating fine aggregate matrix from Reclaimed Asphalt and its viscoelastic properties tested with the use of the Dynamic Shear Rheometer

Dawid Rys, Cezary Szydlowski, Piotr Jaskula, Mariusz Jaczewski, Jacek Alenowicz, Bohdan Dolzycki, Marek Pszczola, Marcin Stienss

Characterization and Recyclability of RAP from Plastic-Modified Asphalt Mixtures

Isabella Madeira Bueno, Joseph Tighi, Jamilla E. S. L. Teixeira, Kamilla Vasconcelos

Use of high polymer-modified bitumen in mixtures containing reclaimed asphalt: a field application

Edoardo Bocci, Giovanni Marchegiani, Renza Espen, Volkmar Mair, Maurizio Bocci

Rheological binder analysis for determining the maximum Reclaimed Asphalt Pavement (RAP) content in asphalt mixtures

Simone Raschia, Giovanni Marchegiani, Stefano Tattolo

Coffee Break

18th June 2026, 10:30-11:00, Common Area

Session S16. Alternative Paving Materials – Sustainability (TC 325-APS)

18th June 2026, 11:00-12:30, Room “Giotto”

Chair: **Davide Lo Presti**

Ageing performance of asphalt binders modified with lignin and WCO

Danai Maria Kalama, Georgios Pipintakos, Milan Van Gool, Wim Van den Bergh

Resin-based bio-binder as a sustainable alternative for high RAP asphalt mixtures

Manuel De Rose, Rosolino Vaiana, Paolino Caputo, Cesare Oliviero Rossi

Evaluation of bio-extended binders for foamed bitumen applications

Ecem Nur Barisoglu, Hilde Soenen, Christina Makoundou, Wim Van den Bergh

Physico-chemical characterization of bio-based binder under environmental aging

Justine Cantot, Inès Charradi, Elio Ziade, Aurelia Nicolai, Emmanuel Chailleux

Ageing of bio-based binders for road materials: comparison between thermal-oxidative and salt-fog ageing

Maria Camila Santos, Justine Cantot, Emmanuel Chailleux, Vincenzo Fiore, Flavien Geisler, Simon Pouget, Gaspare Giancontieri, Usman Ghani, Riccardo Miranda, Carmelo Sanfilippo, Bernhard Hofko, Davide Lo Presti

Preliminary findings of the “SMASHit” project: towards sustainable maintenance of secondary road pavements

Lucia Tsantilis, Davide Dalmazzo, Orazio Baglieri, Ezio Santagata, Claudio Lantieri, Leonardo Cameli, Marco Bruno, Riccardo Ceriani, Giovanni Giacomello, Andrea Baliello, Marco Pasetto, Emiliano Pasquini

Session S17. Advanced Performance Testing, Innovative Characterization, Lab and Field Evaluation of Pavements and Paving Mixtures

18th June 2026, 11:00-12:30, Room “Mantegna 1”

Chair: **Silvia Caro**

Effect of aircraft trafficking on microtexture and macrotexture of an asphalt runway surface

Gadel Baimukhametov, Greg White

A new shear bond test to assess the quality of longitudinal construction joints in asphalt pavements

Marco Pasetto, Andrea Baliello, Emiliano Pasquini

Effect of temperature on Mode I fracture of concrete/asphalt interfaces

Sadek Tormos, Armelle Chabot, Eshan Dave, Jean-Luc Geffard

Hydro-mechanical coupling analysis of crack development in steel bridge deck pavement under hydrodynamic pressure

Xinyuan Zhao, Leilei Chen, Xiaohu Chen, Giovanni Giacomello, Marco Pasetto

Performance analysis of asphalt railway sub-ballast through punching test

Aldo La Placa, Federico Autelitano, Raheb Hafezzadeh, Felice Giuliani

Determination of effective fatigue temperature using representative volume element analysis within a simplified viscoelastic continuum damage framework

Ala' Hudaib, Y. Richard Kim

Session S18. Reclaimed Asphalt Pavement and Binder Behavior, High-RAP Mixtures and Performance Evaluation

18th June 2026, 11:00-12:30, Room “Mantegna 2”

Chair: **Hervé Di Benedetto**

Stiffness properties and moisture-induced damage resistance of high-RAP asphalt mixtures modified with recycled waste plastics

Joseph Nicolas La Macchia, Amira Ben Ameer, Davide Dalmazzo, Jan Valentin, Orazio Baglieri

Influence of recovery time on the rheological behavior of RAP binders

Bethania Machado Correa, William Fedrigo, Pedro Orlando Borges de Almeida Júnior, Lélío Antônio Teixeira Brito

Evaluation of RAP collected from semi-dense asphalt in Switzerland

Peter Mikhailenko, Simon Steiner, Erik Bühlmann, Alain Tobler

Verification of high-RAP mixtures including recycled plastic compound: from lab- to plant-production

Joseph Nicolas La Macchia, Orazio Baglieri, Davide Dalmazzo, Ezio Santagata

Effect of RAP content, temperature and frequency on resilient modulus of asphalt mixes using response surface methodology

Bicky Agarwal, Ambika Behl, Rajiv Kumar, Ashish Dhamaniya

Assessment of RAP refining duration based on bitumen mastic removal efficiency and preservation of aggregate surface texture to increase RAP content in new asphalt mixtures

Giovanni Marchegiani, Simone Raschia, Edoardo Bocci, Stefano Tattolo

Lunch & Poster Session

18th June 2026, 12:30-14:00, Common Area

Session S19. Performance-based Asphalt Recycling (TC 308-PAR)

18th June 2026, 14:00-15:30, Room “Giotto”

Chair: **Eshan Dave**

Mechanistic fatigue evaluation of high-RAP asphalt concretes for airport pavements

Sara Spadoni, Simone Raschia, Stefano Tattolo

Towards Optimized Use of Asphalt Recycling Agents: Interim Results from RILEM TC 308-PAR Task Group 4

Augusto Cannone Falchetto, Martin Hugener, Di Wang, Fan Zhang, Yuxuan Sun, Surya Narayanan, Osama Altarawneh, Edith Arámbula Mercado, Andrea Baliello, Marc-André Bérubé, Johannes Büchner, Amy Epps Martin, Éric Lachance-Tremblay, Daniela Marin Millian, Pedro Orlando Borges de Almeida Júnior, Marco Pasetto, Emiliano Pasquini, Luciano Pivoto, Simone Raschia, Eshan V. Dave, Gabriele Tebaldi

Effect of compaction temperature and air voids on the viscoelastic properties of RAP using IRT

Thamires Ximenes Cavalcante, Jean-Claude Carret, Kevin Bilodeau, Lucas F. de A. L. Babadopolos

Recycling limits of high-RAP asphalt binders under repeated aging-rejuvenation: compositional and low-temperature evaluation

Yuxuan Sun, Fan Zhang, Di Wang, Augusto Cannone Falchetto

Sustainable porous asphalt mixture made up of 50% reclaimed asphalt

Cristina Oreto, Giuseppe D'Addio, Rosa Veropalumbo, Nunzio Viscione, Francesca Russo

Full scale experimental investigation of cold asphalt mixes with high RAP content: curing and moisture effect

Fateh Fakhari Tehrani, Benoit Picoux, Safa Sammouri, Anne Aimable, Joseph Absi, Anne Millien, Thomas Lebarbe, Frédéric Delfosse, Christophe Petit

Session S20. Advanced Performance Testing, Innovative Characterization, Lab and Field Evaluation of Pavements and Paving Mixtures

18th June 2026, 14:00-15:30, Room “Mantegna 1”

Chair: **Kamilla Vasconcelos**

Assessing fine aggregate morphology and its link to FAA in Superpave asphalt mix design

Zifeng Zhao, Shambhavi Khanal, Mihai Marasteanu, Jia-liang Le

Evaluating strain evolution in asphalt mixtures via indirect tensile testing and digital image correlation

Vincent Jacobs, Ali Golmohammadi Tavalaei, Cedric Vuye, Navid Hasheminejad

Evaluating Hamburg and dynamic modulus sensitivity to progressive water exposure in asphalt concrete mixtures

Luckson Kamisa, M. Emin Kutay, Ali Qabur

A case study of assessing sampling location impact on asphalt mixture characterization test variability

Rishitha Deva, Collins Abrefah Nketiah, Michael Elwardany

Performance characterization of airfield asphalt concrete for service temperature cracking

Akash Bajaj, Imad L. Al-Qadi

Recent advances in airport asphalt materials and pavements: a summary of FAA research

Navneet Garg

Session S21. Modeling, Machine Learning and Numerical Simulation

18th June 2026, 14:00-15:30, Room “Mantegna 2”

Chair: **Orazio Baglieri**

A fast surrogate model for tyre-pavement tractive contact

Débora Cardoso da Silva, Ndrianary Rakotovao Ravahatra, Benoit Picoux, Philippe Reynaud, Sylvie Yotte, Christophe Petit

Prediction of pavement base-course mixture performance using an artificial neural network approach

Nicola Baldo, Fabio Rondinella, Cristina Oreto, Francesco Abbondati

Improvement of the selection of stress states and proposal of a new model for predicting permanent deformation of soils and granular materials in pavements

João Victor Lima Alencar, Alfran Sampaio Moura, Juceline Batista dos Santos Bastos, Iuri Sidney Bessa, Jorge Barbosa Soares, Lucas Feitosa de Albuquerque Lima Babadopulos

Asphalt pavement temperature prediction based on thermo-physical and machine learning modeling: insights from the SMARTEP facility

Fabio Rondinella, Konstantinos Mantalovas, Nicola Baldo, Clara Celauro

Measurement of aggregate shape index for pavements using traditional methods and smartphone-based digital image processing

Flávio Costa, Vanessa Vasconcelos, Otavio José Gomes, Jorge Soares, Juceline Bastos, Iuri Bessa

A new methodology for fracture testing of unbound granular road materials

M. Kaan Etikan, Denis Jelagin, Manfred N. Partl, Erik Olsson

Coffee Break

18th June 2026, 15:30-16:00, Common Area

Session S22. Environmental Impact, Emissions and Life-Cycle Assessment

18th June 2026, 16:00-17:30, Room “Giotto”

Chair: **Johan Blom**

Preliminary rheological characterization of spirulina-derived bio-based binders from hydrothermal liquefaction

Kussai Alrini, Piergiorgio Tataranni, Michela Alfé, Valentina Gargiulo, Cesare Oliviero Rossi, Paolino Caputo, Valeria Loise, Cesare Sangiorgi

Balancing Marshall properties and emissions in plastic-modified asphalt

Kanika, Bhupendra Singh, Anand Sreeram

Estimating the carbon footprint of bio-based materials in asphalt mixtures

Zila Mascarenhas, Kateryna Krayushkina, Augusto Cannone Falchetto, Leidy Espinosa, Kamilla Vasconcelos

Technical and environmental performances of asphalt pavements including recycled plastic from beverage packaging

Giovanni Dolci, Mary Jo F. A. Nichilo, Marco Grisendi, Mario Grosso, Lucia Rigamonti, Elena Romeo, Gabriele Tebaldi

Impact of asphalt composition and thermal conditions on volatile organic compound emissions: experimental evaluation using a dynamic chamber method

Antoine Massroua, Bogdan Muresan, Frédéric Thevenet, Manolis N. Romanias, Vincent Gaudefroy

Environmental assessment of asphalt mixtures used on Brazilian highways at the raw materials supply stage

Pedrina Vitória, Kamilla Vasconcelos

Session S23. Cold Recycling, Cement-Bitumen and Emulsion Systems

18th June 2026, 16:00-17:30, Room “Mantegna 1”

Chair: **Cédric Sauzéat**

Influence of emulsion characteristics and RAP content on the indirect tensile strength of emulsified full depth reclamation (EFDR) mixtures

Arathy S. Nair, Atanu Behera, V. T. Thushara

Elastic moduli of cement-bitumen treated materials and existing pavement structure during early curing: a case study

Juceline Bastos, Marc-André Bérubé, Éric Lachance-Tremblay

Stiffness variability and evolution of cement-bitumen treated materials in an urban rehabilitated road

Maicon Basso Dos Santos, Marc-André Bérubé, Andrea Graziani, Éric Lachance-Tremblay

Influence of deformation amplitude and fatigue cycles on the tensile behaviour of cold-recycled asphalt mixtures

Sajjad Noura, Andrea Graziani, Alan Carter

Comparison of bearing capacity of pavement structures with base course made of unbound aggregate and cold recycled material mixture

Bohdan Dołżycki, Cezary Szydtowski, Mariusz Jaczewski

Fracture behavior of cold-mixed semi-flexible pavement evaluated by semicircular bending tests

Congsheng He, Xiaoyu Liu, Kuanghuai Wu, Fengming Ren, Xu Cai, Yunpeng Yue, Giovanni Giacomello, Marco Pasetto

Session S24. Modeling, Machine Learning and Numerical Simulation

18th June 2026, 16:00-17:30, Room “Mantegna 2”

Chair: **Manfred N. Partl**

Specification-based and machine learning-based multi-objective design for asphalt pavement using finite element modeling

Jingyi Xie, Gabriele Tebaldi, Yuqing Bai, Yu Yan

A numerical analysis to understand the tire / pavement contact mechanism on flexible pavement responses

Hrushikesh Pandurangi, Suhas Thyagatur Ramachandraiah, Krishna Prapoorna Biligiri

Modelling of inductive electrified road systems under accelerated loading and comparison with fatigue carousel measurements

Gustavo Garcia Otto, Mai Lan Nguyen, Pierre Hornych, Pierre Delaigue, Lionel Grin, Séverine Olivier, Bertrand Pouteau, Vincent Labbé, Guillaume Demond

A true triaxial testing machine for asphalt materials: features, numerical calibration, and future applications

Gustavo Canon Falla, Marcel May, Sabine Leischner, Ines Wollny, Michael Kaliske, Alexander Zeißler

Machine learning approach on rutting prediction model of asphalt pavement

Wu Nanjie, Fan Wenjun, Wang Zihao, Zhang Ran, Zheng Wenhua, Suo Zhi, Zhang Jun, Ji Jie

A systematic model for quantitative service life comparison of asphalt layers

Shahin Eskandarsefat

Plenary session – 17:30, Room “Giotto”

Closing ceremony

Poster presentations

Chairs: Jorge Pais, Johannes Mirwald

P.01 – A coupled tire–pavement–bridge model incorporating viscoelastic behavior and realistic tire loads

Haitao Ge, Gabriele Tebaldi, Elena Romeo, Giovanni Plizzari, Reggia Adriano, Ivan Beltracchi

P.02 – A cradle-to-gate LCA assessment of reclaimed asphalt mixtures in surface course

Bicky Agarwal, Ambika Behl, Rajiv Kumar, Ashish Dhamaniya

P.03 – Air traffic decision model for airfield asphalt pavement under varying subgrade moisture conditions

Manik Chakraborty, Eshan Dave, Jo E. Sias, Majid Ghayoomi, Navneet Garg

P.04 – Analysis of the effect of a liquid anti-stripping agent on the properties of dense graded airport asphalt

Greg White

P.05 – Assessing fatigue performance of asphalt mixtures through dynamic semi-circular bending test

Karolayne Melo, Jamilla Teixeira, Lilian Rezende

P.06 – Assessing the stability of bituminous binders through EPR analysis of naturally occurring and gamma irradiation-induced free radicals

Wiktoria Baranowska, Jarosław Sadło, Hanna Lewandowska

P.07 – Assessing the sustainable potential of induction furnace (IF) steel slag as a pavement aggregate alternative through advanced material characterisation techniques

R. Sreeresh, M. Sivakumar

P.08 – Assessment of Exposure Reduction in Asphalt Paving Using Integrated Mitigation Approaches

Tim Schrödter, Pahirangan Sivapatham, Anke Kahl, Marina Bier, Kai Süssel-beck

P.09 – Bituminous mixture thermal gradient effect on deflection basins numerically simulated

Maria Beatriz Barbosa Ferreira, Reuber Arrais Freire, Iuri Sidney Bessa

P.10 – Classifying and predicting pothole volume with machine learning models

Kriti Sigdel, Sayla Prova, Mayzan Isied, Mena Souliman

P.11 – Comparative evaluation of aging sensitivity among different penetration grade bitumen using chemical and rheological indicators

Daniel Horn, Sandra Weigel

P.12 – Comparative multi-scale characterisation of virgin and RAP fillers and their role in binder–filler interaction

Surendranath Madduru, M. Sivakumar

P.13 – Design and field validation of high-performance asphalt mixtures with up to 80% green materials: RAP, bio-based agents, and steel slag integration

Riccardo Monticelli, Elena Romeo, Gabriele Tebaldi

P.14 – Determining optimum sulfur content for sbs-modified asphalt binder using a DSR-SER extensional approach

Nafisa Tarannum, Nazimuddin Wasiuddin, Nurzahan Nurzahan

P.15 – Development of performance indicators for high-performance asphalt concrete (HPAC) in Canada

Alexandre Bennett, Fernando Dacio de Almeida, Diego Ramirez Cardona

P.16 – Dissipated energy as a field verification metric for Balanced Mix Design

Carl A. Lenngren, Maria Inmaculada Garcia Hernandez

P.17 – Effect of antioxidants on the performance of bio-binder containing pyrolysis oil

Thavamani Andiyappan, Naveen Dadige, Bharath Gottumukkala, Kranthi Kumar Kuna

P.18 – Effect of extended thermal aging on the fatigue behaviors of asphalts binders

Mohammed Nouali, Stéphanie Vignaud, Anne Dony, Virginie Mouillet

P.19 – Effect of foaming water content on the properties of foamed asphalt

Rong Lu, Jie Wang, Jian Xu, Sudi Wang

P.20 – Effect of moisture conditioning on mechanical strength of crumb rubber modified asphalts

Mehvesh Mushtaq, Marco Corradi

P.21 – Environmental benefits of pavement rehabilitation with polymeric reinforcing grids

Andreas Elsing, Luis Eduardo Russo, Filippo Tortul

P.22 – Evaluating the influence of mix design variables on moisture resistance of bituminous mixtures using response surface methodology

Sadiya Shaikh, Ankit Gupta

P.23 – Evaluating the rheological improvement of asphalt binders modified with recycled facemasks

Sayla Prova, Tanvir Ahmed, Mayzan Isied, Mena Souliman

P.24 – Evaluation of binder - aggregate bond strength LDPE-modified asphalt binders: influence of plastic source variability

Singh Aakash, Ankit Gupta

P.25 – Evaluation of failure temperature and fracture energy of fibre-reinforced high-performance asphalt concrete

Mohamed Saleh, Leila Hashemian

P.26 – Advances in High-RAP asphalt mixtures: a focused review

Soumyadeep Deb, Kamilla Vasconcelos Savasini, Praveen Kumar

P.27 – Fatigue characteristics of bio-binders under tension-compression test

Yahiri Jean-Yves, Orozco Gabriel, Chupin Olivier, Hammoum Ferhat

P.28 – Fiber-reinforced CBEM: impact of stone cutting waste from Rajasthan

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P.29 – Flow number testing as an alternative approach for cohesion evaluation in bitumen stabilised materials

Katarzyna Konieczna, Jan B. Król, Wojciech Sorociak

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Ana María Rodríguez-Alloza

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C. Somé, J-Y Yahiri, V. Mouillet, F. Lahjiri, A. Themeli, R. Colliat

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Alana Benedetto de Oliveira, André Cunha Barbosa, Bruno Martins e Silva, Douglas Alberto Rocha de Castro, Neilton Souza Pedrosa, Matheus Pena da Silva e Silva, Daniela Muniz D'Antona Guimarães

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Ignacio Artamendi, Ankita Sikder, Neil Leake, Bob Allen, Ray Sandip, Philip Sabin

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Thomas Lebarbé, Arthur Delaboissiere

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Hanyu Zhang, Hilde Soenen, Xavier Carbonneau, Xiaohu Lu, Gordon Airey, Yuqing Zhang

P.49 – Mechanism of the influence of refined separation RAP on the quality stability of recycled asphalt mixtures

Sudi Wang, Jian Xu, Jie Wang, Rong Lu

P.50 – Mechanistic temperature–frequency correction of deflectometer-based moduli for cement-bitumen treated materials

Juceline Bastos, Samuel Torquato e Silva, Marc-André Bérubé, Éric Lachance-Tremblay

P.51 – Monitoring and modeling of field compaction: a case study on a low-noise thin asphalt layer

João Crucho, Ben Duerinckx, Alexandros Margaritis, Tine Tanghe, Stefan Vansteenkiste

P.52 – Optimization of skid resistance in secondary hot in-place recycled asphalt mixtures

Zhaoyue Zhu, Haopeng Wang, Bo Li, Aihong Kang

P.53 – Performance degradation characteristics of water-containing epoxy resin mixtures under multiple coupling effects

Zhihua Wang, Shanshan Jin, Pengfei Liu, Zhi Suo

P.54 – Performance evaluation of cold mix recycled asphalt concrete base layer on Taiwan's expressway no. 61

Wei-Lun Tsai, Shih-Huang Chen, Chun-Yao Chen, Putri Adhitana Paramitha, Cheng-Yi Yang, Qi-Lun Jian, Yi-Yang Cheng

P.55 – Potential of using lignin to replace fossil-based asphalt binders

Fan Zhang, Yuxuan Sun, Dongdong Yuan, Augusto Cannone Falchetto

P.56 – Proposal of a qualitative-quantitative classification of aggregates for road pavements based on standard parameters

Flávio Costa, Iuri Bessa

P.57 – Quality and durability of rejuvenated asphalt binder-aggregate adhesive systems

Julián López-Jaramillo, Silvia Caro, Diana B. Sánchez

P.58 – Quantification of retained absorbed asphalt binder in aggregates using binder content estimation methods

Shivani Shukla, Animesh Das

P.59 – Rheological properties of RAP binder blends modified with different bio-based recycling agents

Md Mehedi Hasan Khan Shaon, Syed Ashik Ali, Kenneth Ray Hobson, Nazimuddin Wasiuddin, Musharraf Zaman

P.60 – Rheological properties of Sasobit Redux–modified bitumen for cold-region surface treatments

Eche Samuel Okem, Mohamed M.H. Mostafa

P.61 – Road test on bio-based penetration grade and polymer modified binders–laboratory test results and greenhouse gas emissions

Robert Lundström, Helga Ros Fridgeirsdottir, Jonas Ekblad

P.62 – Study of bilayer asphalt concrete slab deformation with the french wheel tracking test and DEM simulation

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P.63 – Study on rheological properties of high viscosity modified asphalt

Jingxiao Li, Wangjie Wu, Teng Wang, Dongdong Yuan

P.64 – Synergistic repurposing of municipal solid waste incineration fly ash and crumb rubber in asphalt binder modification

Thota Bhumika, Sheikh Hazim, Krishna Prapoorna Biligiri

P.65 – Thermooxidative, ozone and photooxidative aging of different types of modified bitumens

Kamil Niemyjski, Jakub Kamiński

Friday, 19th June, 2026

@ ICEA Department

FAA-STAC Workshop

offered by:

- Federal Aviation Administration (FAA, United States)
- Direction Générale de l'Aviation Civile Service Technique de l'Aviation Civile (DGAC-STAC, France)

organized by:

- University of Padova, ICEA Department

FAA-STAC Workshop - Airport Pavement Design and Evaluation

19th June 2026, 9:30-13:30, Room R (2nd floor, ICEA Department)

9:30 - Introduction and Overview of Workshop

Navneet Garg (FAA), Michaël Broutin (DGAC)

9:40 - Historical Background – Full Scale Tests & Design Procedures

Navneet Garg (FAA)

10:00 - ICAO's ACR-PCR Overview

Michaël Broutin (DGAC)

10:20 - FAA Advisory Circulars – Pavement Design/Evaluation

Navneet Garg (FAA)

10:45 - Introduction to FAARFIELD 2.1 – Software Overview

Navneet Garg (FAA)

Break

11:30 - FAARFIELD 2.1: Flexible Pavement Design & PCR Exercise

Navneet Garg (FAA)

12:00 - Alizé – French Airport Pavement Design Procedure

Michaël Broutin (DGAC)

12:30 - Alizé – PCR Computation and Case Studies

Michaël Broutin (DGAC)

13:00 - Questions / Discussions

Follow Up

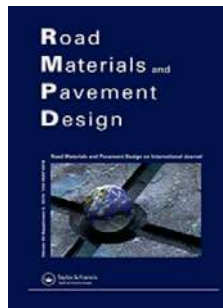
Conference Proceedings

Accepted short papers (Regular submission and Submission for RILEM Youth Competition) are going to be published in indexed **Conference Proceedings** published by **Springer**.

Moreover, after the Symposium, most valuable Regular Submissions and the 3 awarded RILEM Youth Competition papers will be invited to submit for consideration an extended version to indexed Special Issues of the following Journals. The selection will be based on the quality of paper and oral/poster presentation.



Materials and Structures
Springer



Road Materials and Pavement Design
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