2nd RILEM International Symposium on Bituminous Materials

16-18th June 2026, Padova, Italy

ISBM2026 Program

Organized by:

UNIVERSITÀ DI PADOVA

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di Ingegneria civile,
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Società Italiana Infrastrutture Viarie

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Welcome

It is our pleasure to present the **2nd RILEM International Symposium on Bituminous Materials (ISBM2026)**, held in Padova, Italy, on June 16-18, 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 at ISBM2026 provide a broad and timely 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), and 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 life-cycle assessment.

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) - 16th June 2026
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, 19thJune 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 organized under the auspices of Federal Aviation Administration (FAA).



Scientific Contributions

Advanced characterization and analysis of bituminous materials:
fingerprinting 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.

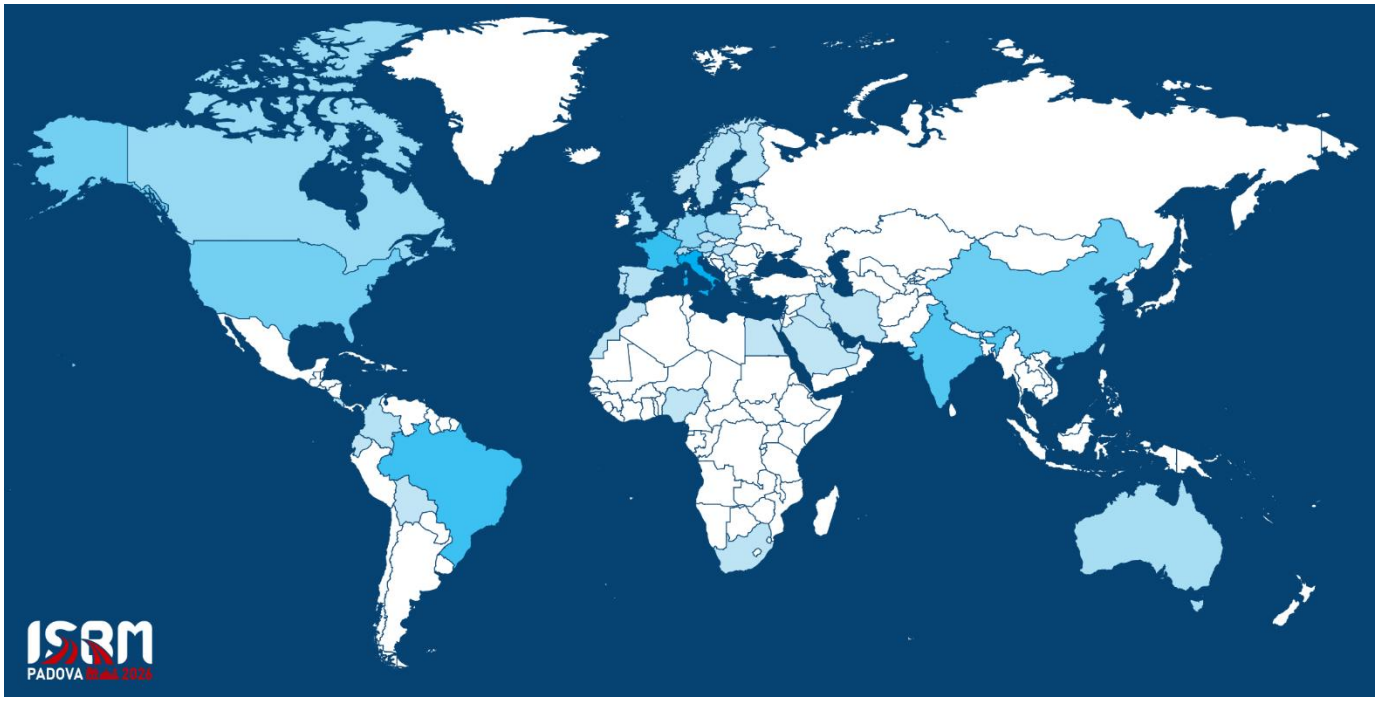
Performance of materials:
mechanical, thermal, chemical, and physical properties, mix-design, durability, etc.

Pavement design, testing and modeling:
accelerated pavement testing, structural evaluation, modeling, surface characteristics, vehicle-road interaction, non-destructive testing, back-analysis, etc.

Advanced technologies and smart infrastructure:
innovative sensors, machine learning, smart materials, smart city infrastructure, data science, etc.

+ 250 papers

+600 Authors from +40 Countries



Program

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

- 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, Sarmeola di Rubano, Padova

Day 1 – 16th June, 2026
@ Palazzo Bo

Registration (from 12:00)

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

Opening ceremony

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

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

17th June 2026, 9:00-10.30, Room A

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 Škulteckė, Ovidijus Šernas

Bending Beam Rheometer tests on complex bituminous binders, outcomes from RILEM TC 272-PIM TG1
Lucia Tsantilis, Davide Dalmazzo, Laurent Porot

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

17th June 2026, 9:00-10.30, Room B

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

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

17th June 2026, 9:00-10.30, Room C

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

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

17th June 2026, 11:00-12.30, Room A

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

S5. Performance and Durability of Modified, Recycled and Alternative Asphalt Materials
17th June 2026, 11:00-12.30, Room B
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 Szydłowski, Michał Gołos, 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

S6. Fingerprinting bituminous binders using physico-chemical analysis (TC 295-FBB)
17th June 2026, 11:00-12.30, Room C
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 ^{1}H-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 Unterbuchschachner, 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, Pejoohan Tavassoti
Refining molecular configurations for accurate and reliable bitumen molecular dynamics simulations
Farhad Sakanlou, Marina Macchiagodena, Chiara Riccardi, Marco Pagliai, Massimo Losa

S7. Aging Effects , Rejuvenation and Hot Recycling
17th June 2026, 14:00-15.30, Room A
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. Poulikakos, 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

S8. Performance and Durability of Modified, Recycled and Alternative Asphalt Materials
17th June 2026, 14:00-15.30, Room B
Short-term mechanical behavior of gravel-emulsion mixtures compared to unbound granular materials
Zhi Chen, Cyrille Chazallon, Pierre Hornych, 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

S9. Physicochemical Effects of Polymers in Bitumen (TC 307-PPB)
17th June 2026, 14:00-15.30, Room C
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 Bötel, 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

S10. Aging Effects , Rejuvenation and Hot Recycling
17th June 2026, 16:00-17.30, Room A
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

S11. Warm Mix Asphalt and Half-Warm Technologies
17th June 2026, 16:00-17.30, Room B
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

S12. Functional and Climate-Adaptive Pavement Technologies
17th June 2026, 16:00-17.30, Room C
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. Santos1, 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 Keskikuru, Lucía Escudero Sartages, David Romero Sànchez, Mădălin Silion, Lucian Lumînăroiu

Plenary session – 17:30, Room A

RYC – RILEM Youth Competition

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

S13. Bio-Binders, Biogenic Binder Materials Bio-based Additives and Fillers
18th June 2026, 9:00-10.30, Room A

Biochar as an alternative filler for bitumen-stabilised materials
Daniel Grossegger, Christiane Raab, Jade Hurel
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
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

S14. Mechanical Wave Propagation to characterize bituminous mixtures (TC 331-MWP)
18th June 2026, 9:00-10.30, Room B

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, Lélio Antônio Teixeira Brito

S15. Reclaimed Asphalt Pavement and Binder Behavior, High-RAP Mixtures and Performance Evaluation
18th June 2026, 9:00-10.30, Room C

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, Idelgardy 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

S16. Alternative Paving Materials – Sustainability (TC 325-APS)
18th June 2026, 11:00-12.30, Room A

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 Nicolaï, 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

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

18th June 2026, 11:00-12.30, Room B

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

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

18th June 2026, 11:00-12.30, Room C

Stiffness properties and moisture-induced damage resistance of high-RAP asphalt mixtures modified with recycled waste plastics
Joseph Nicolas La Macchia, Amira Ben Ameur, 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, Lélio Antônio Teixeira Brito
Advances in High-RAP asphalt mixtures: a focused review
Soumyadeep Deb, Kamilla Vasconcelos Savasini, Praveen Kumar
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

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

18th June 2026, 14:00-15.30, Room A

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. Babadopulos
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, Fréderic Delfosse, Christophe Petit

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

18th June 2026, 14:00-15.30, Room B

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 Vuye1, 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

S21. Modeling, Machine Learning and Numerical Simulation

18th June 2026, 14:00-15.30, Room C

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
Comparing the remaining fatigue life of asphalt pavements constructed with unmodified and polymer modified bitumen using finite element modelling
Hanyu Zhang, Hilde Soenen, Xavier Carbonneau, Xiaohu Lu, Gordon Airey, Yuqing Zhang
A new methodology for fracture testing of unbound granular road materials
M. Kaan Etikan, Denis Jelagin, Manfred N. Partl, Erik Olsson

S22. Environmental Impact, Emissions and Life-Cycle Assessment

18th June 2026, 16:00-17.30, Room A

Effect of waste-derived hydrochars on reducing VOC and PAH emissions from bitumen fumes
Hongjun Dong, Chiara Riccardi, Federica Barontini, Monica Puccini, Massimo Losa
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

S23. Cold Recycling, Cement-Bitumen and Emulsion Systems

18th June 2026, 16:00-17.30, Room B

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 Szydłowski, 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

S24. Modeling, Machine Learning and Numerical Simulation

18th June 2026, 16:00-17.30, RoomC

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 A

Closing ceremony

Poster presentations

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
A cradle-to-gate LCA assessment of reclaimed asphalt mixtures in surface course
Bicky Agarwal, Ambika Behl, Rajiv Kumar, Ashish Dhamaniya
Air traffic decision model for airfield asphalt pavement under varying subgrade moisture conditions
Manik Chakraborty, Eshan Dave, Jo E. Sias, Majid Ghayoomi, Navneet Garg
Analysis of the effect of a liquid anti-stripping agent on the properties of dense graded airport asphalt
Greg White
Assessing fatigue performance of asphalt mixtures through dynamic semi-circular bending test
Karolayne Melo, Jamilla Teixeira, Lilian Rezende
Assessing the stability of bituminous binders through EPR analysis of naturally occurring and gamma irradiation-induced free radicals
Wiktoria Baranowska, Jarosław Sadło, Hanna Lewandowska
Assessing the sustainable potential of induction furnace (IF) steel slag as a pavement aggregate alternative through advanced material characterisation techniques
R. Sreeresh, M. Sivakumar
Assessment of Exposure Reduction in Asphalt Paving Using Integrated Mitigation Approaches
Tim Schrödter, Pahirangan Sivapatham, Anke Kahl, Marina Bier, Kai Süssel-beck
Bituminous mixture thermal gradient effect on deflection basins numerically simulated
Maria Beatriz Barbosa Ferreira, Reuber Arrais Freire, Iuri Sidney Bessa
Classifying and predicting pothole volume with machine learning models
Kriti Sigdel, Sayla Prova, Mayzan Isied, Mena Souliman
Comparative evaluation of aging sensitivity among different penetration grade bitumen using chemical and rheological indicators
Daniel Horn, Sandra Weigel
Comparative multi-scale characterisation of virgin and RAP fillers and their role in binder–filler interaction
Surendranath Madduru, M. Sivakumar
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
Determining optimum sulfur content for sbs-modified asphalt binder using a DSR-SER extensional approach
Nafisa Tarannum, Nazimuddin Wasiuddin, Nurzahan Nurzahan
Development of performance indicators for high-performance asphalt concrete (HPAC) in Canada
Alexandre Bennett, Fernando Dacio de Almeida, Diego Ramirez Cardona
Dissipated energy as a field verification metric for Balanced Mix Design
Carl A. Lenngren, Maria Inmaculada Garcia Hernandez
Effect of antioxidants on the performance of bio-binder containing pyrolysis oil
Thavamani Andiyappan, Naveen Dadige, Bharath Gottumukkala, Kranthi Kumar Kuna
Effect of extended thermal aging on the fatigue behaviors of asphalts binders
Mohammed Nouali, Stéphanie Vignaud, Anne Dony, Virginie Mouillet
Effect of foaming water content on the properties of foamed asphalt
Rong Lu, Jie Wang, Jian Xu, Sudi Wang
Effect of moisture conditioning on mechanical strength of crumb rubber modified asphalts
Mehvesh Mushtaq, Marco Corradi
Environmental benefits of pavement rehabilitation with polymeric reinforcing grids
Andreas Elsing, Luis Eduardo Russo, Filippo Tortul
Evaluating the influence of mix design variables on moisture resistance of bituminous mixtures using response surface methodology
Sadiya Shaikh, Ankit Gupta
Evaluating the rheological improvement of asphalt binders modified with recycled facemasks
Sayla Prova, Tanvir Ahmed, Mayzan Isied, Mena Souliman
Evaluation of binder - aggregate bond strength LDPE-modified asphalt binders: influence of plastic source variability
Singh Aakash, Ankit Gupta
Evaluation of failure temperature and fracture energy of fibre-reinforced high-performance asphalt concrete
Mohamed Saleh, Leila Hashemian
Evaluation of RAP collected from semi-dense asphalt in Switzerland
Peter Mikhailenko, Simon Steiner, Erik Bühlmann, Alain Tobler
Fatigue characteristics of bio-binders under tension-compression test
Yahiri Jean-Yves, Orozco Gabriel, Chupin Olivier, Hammoum Ferhat
Fiber-reinforced CBEM: impact of stone cutting waste from Rajasthan
Kanika, Mohit Singh Parihar, Pranav Saraswat, Koduru Sandeep, Bhupendra Singh
Flow number testing as an alternative approach for cohesion evaluation in bitumen stabilised materials
Katarzyna Konieczna, Jan B. Król, Wojciech Sorociak
Fracture process zone characterization of asphalt mixtures at low temperature using digital image correlation
Moein Biglari, Xiomara Sanchez
Fragmentation and cohesion test indices as tools for designing hot recycled asphalt mixes
Gurunath Guduru, Thavamani Andiyappan, Siddharth P Gaikwad, Sandip Das, Manish Chitkara, Kranthi Kuna

From algae to asphalt: a bio-based binder integrating algal bio-oil and polyhydroxyalkanoates for sustainable pavements
Roberto Giannelli, Chiara Riccardi, Emanuele Damante, Sara Filippi, Massimo Losa
From repair to regeneration: a comparative life cycle assessment of microwave self-healing road technology
Ana María Rodríguez-Alloza
Hourly pavement temperature prediction model for bituminous pavements for cumulative damage–based de-sign framework
Subhajit Banerjee, Ediga Harshavardhan Goud, Megha S Nair, Kranthi Kumar Kuna
Hydrolysis and leaching behaviour of biobased tall oil products
Sayeda Nahar, Marvin Verdurmen
Implementation of EME2 high modulus asphalt with high RAP Content in subtropical climates
Laszlo Petho, Warrick Cutler
Influence of base binder physico-chemical characteristics on performance of EVA-modified high-performance (HiPER) binders
Venkata Akhilesh Danam, Subhajit Banerjee, Nachiket Arvind Sudewad, Amaranatha Reddy Muppireddy
Influence of oxidative ageing and recycling agents on the rheological behavior of highly recycled bituminous mixtures
C. Somé, J-Y Yahiri, V. Mouillet, F. Lahjiri, A. Themeli, R. Colliat
Influence of polyphosphoric acid and EVA modification on the rutting performance of asphalt mixtures under laboratory and field conditions
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
Integrated cradle-to-gate embodied energy and construction cost assessment of LDPE-modified asphalt pavements
Aakash Singh, Ankit Gupta
Investigating the combined effect of aging and moisture on asphalt mixes
Sina Mousavi Rad, Mohamed Elkashef
Investigating the impact of aggregate source on the fatigue behavior of dense-graded mixtures with highly polymer-modified binder
Chukwunwike Okwuenu, Michael Elwardany, Ahmed Hassanien1
Investigation on the potential of incorporating geopolymer binder in low-traffic pavement surface applications
Joseph Abdayem, Marianne Saba, Anne Millien, Fateh Fakhari-Tehrani, Joseph Absi
Laboratory assessment of stone mastic asphalt containing lignin powder and lignin-based composite pellets
Ignacio Artamendi, Ankita Sikder, Neil Leake, Bob Allen, Ray Sandip, Philip Sabin
Leaching behaviour of reclaimed asphalt (RAP): elemental release, chemical indicators, and environmental implication
Sayeda Nahar, Ruchira Sharma
Long-term aging assessment of bituminous binders: limitations and prospects
Thomas Lebarbé, Arthur Delaboissiere
Long-term cracking performance evaluation of asphalt concrete overlays over PCC pavements: influence of mix design and interlayer strategies
Shubham H. Modi, Meisam Khorshidi, Narindra Ramananandroniaina, Md Joynul Abadin, Eshan V. Dave, Jo E. Sias
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
Mechanism of the influence of refined separation RAP on the quality stability of recycled asphalt mixtures
Sudi Wang, Jian Xu, Jie Wang, Rong Lu
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
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
Optimization of skid resistance in secondary hot in-place recycled asphalt mixtures
Zhaoyue Zhu, Haopeng Wang, Bo Li, Aihong Kang
Performance degradation characteristics of water-containing epoxy resin mixtures under multiple coupling effects
Zhihua Wang, Shanshan Jin, Pengfei Liu, Zhi Suo
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
Potential of using lignin to replace fossil-based asphalt binders
Fan Zhang, Yuxuan Sun, Dongdong Yuan, Augusto Cannone Falchetto
Proposal of a qualitative-quantitative classification of aggregates for road pavements based on standard parameters
Flávio Costa, Iuri Bessa
Quality and durability of rejuvenated asphalt binder-aggregate adhesive systems
Julián López-Jaramillo, Silvia Caro, Diana B. Sánchez
Quantification of retained absorbed asphalt binder in aggregates using binder content estimation methods
Shivani Shukla, Animesh Das
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
Rheological properties of Sasobit Redux–modified bitumen for cold-region surface treatments
Eche Samuel Okem, Mohamed M.H. Mostafa
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
Study of bilayer asphalt concrete slab deformation with the french wheel tracking test and DEM simulation
Dexin Liu, Juan Carlos Quezada, Cyrille Chazallon, Ferhat Hammoum
Study on rheological properties of high viscosity modified asphalt
Jingxiao Li, Wangjie Wu, Teng Wang, Dongdong Yuan
Synergistic repurposing of municipal solid waste incineration fly ash and crumb rubber in asphalt binder modification

Thota Bhumika, Sheikh Hazim, Krishna Prapoorna Biligiri
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)

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

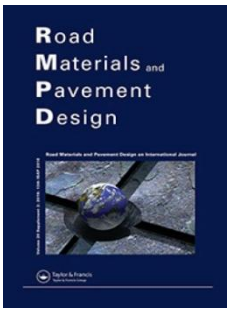
Follow Up

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
Taylor & Francis

Journal of Testing and Evaluation
ASTM