

## Detailed program

### Monday, December 14<sup>th</sup> 2020

#### 10:00 – 10:20 ROOM A – Opening ceremony

Hervé Di Benedetto  
 Cédric Sauzéat  
 Salvatore Mangiafico

#### 10:20 – 11:20 ROOM A – Parallel session 1.1.A: Binder/Sealing

Chairman: Ferhat Hammoum

10:20 – 10:40 L. C. Van Den Kerkhof, *Circular Accelerated Surfacing Tester (CAST) for evaluating chip sealing binders*

10:40 – 11:00 J. Buchheim, C. Recknagel, P. Wolter, K. Kittler-Packmor, *A new approach towards Performance-related design and scientific evaluation of joint sealing systems*

11:00 – 11:20 G. Mesquita, L. Gondim, M. Cavalcante, S. Barroso, *Evaluation of service level of emulsions used in Chip Seal treatments in different stages of UV-induced aging*

#### 10:20 – 11:20 ROOM B – Parallel session 1.1.B: Healing 1

Chairman: Laurent Porot

10:20 – 10:40 R. Varma, R. Balieu, N. Kringos, *A new method for healing quantification of bituminous materials*

10:40 – 11:00 E. Santagata, F. Miglietta, O. Baglieri, L. Tsantilis, *Effect of temperature on self-healing properties of bituminous binders*

11:00 – 11:20 L. Li, Y. Gao, Y. Zhang, *Healing characterisation of waste-derived bitumen based on crack length*

#### 10:20 – 11:20 ROOM C – Parallel session 1.1.C: Modelling 1

Chairman: Ramon Botella

10:20 – 10:40 J.-C. Quezada, C. Chazallon, *Complex modulus modelling of hot asphalt mixes using realistic aggregates*

10:40 – 11:00 F. Fakhari Tehrani, C. Petit, J. Absi, *TSRST heterogeneous modeling for understanding failure depending on asphalt mix design and experimental conditions*

11:00 – 11:20 B. S. Abijith, S. P. Atul Narayan, J. Murali Krishnan, *Influence of confinement pressure on the viscoelastic response of bituminous mixtures*

#### 11:20 – 11:35 Coffee break

#### 11:35 – 12:55 ROOM A – Parallel session 1.2.A: Binder 1

Chairman: Orazio Baglieri

11:35 – 11:55 J. Blom, N. Van Den Brande, H. Soenen, *The influence of wax model compounds on the surface topography of bitumen*

11:55 – 12:15 P. Caputo, V. Loise, F. R. Lupi, E. Lombardo, I. Antunes, *How to improve the miscibility of asphalt binder and polyolefins by phosphoric acid?*

- 12:15 – 12:35 G. Donze-Rangel, C. Bottelin, P. Marchal, M. Chardonnet, L. Vozikis, Y. Hung, *Rheometrics framework analysis to capture self-assemblies organization in bitumen matrix*
- 12:35 – 12:55 M. Elwardany, J.-P. Planche, J. Adams, *Sensitivity analysis for rheological determination of glass transition and crossover temperatures at various reference frequencies*
- 11:35 – 12:55 ROOM B – Parallel session 1.2.B: Fatigue of bituminous mixtures**  
 Chairman: Andrea Graziani
- 11:35 – 11:55 I. Santos, P. Marsac, O. Chupin, F. Hammoum, *Numerical simulation of two-point and four-point bending fatigue test on asphalt mix with intrinsic material parameters based on Digital Image Correlation cracking data*
- 11:55 – 12:15 H. Sahebzamani, M. Z. Alavi, O. Farzaneh, S. Krafft, *Effects of binder content, filler content, air void and modification on damage characteristics of asphalt mix under fatigue loading*
- 12:15 – 12:35 A. Margaritis, G. Pipintakos, L. M. Zhang, G. Jacobs, C. Vuye, J. Blom, W. Van Den Bergh, *Introducing an improved testing method to evaluate the fatigue resistance of bituminous mortars*
- 12:35 – 12:55 M. Steineder, L. Eberhardsteiner, B. Hofko, *Prediction of fatigue behaviour of asphalt mix from tests on asphalt mastic*
- 11:35 – 12:55 ROOM C – Parallel session 1.2.C: Crumb rubber recycling**  
 Chairman: Davide Lo Presti
- 11:35 – 11:55 L. Petho, *Implementing crumb rubber gap-graded and open graded asphalt technologies – the Australian experience*
- 11:55 – 12:15 Z. Leng, X. Xu, J. Lan, R. Li, A. Sreeram, *Rubber-bitumen interaction of plant-blended rubberized bitumen prepared under various blending conditions*
- 12:15 – 12:35 M. Moises, L. Poulidakos, *Large scale characterization of crumb rubber modified asphalt mixtures using dry process*
- 12:35 – 12:55 Y. Mahmoudi, S. Mangiafico, C. Sauzéat, H. Di Benedetto, S. Pouget, J.-P. Faure, *Experimental evaluation of swelling and absorption of crumb rubber aggregates*
- 12:55 – 13:45 **Lunch**
- 13:45 – 14:35 ROOM A – Plenary session 1: RILEM TC 272-PIM**  
 Chairman: Emmanuel Chailleux  
 F. Canestrari, T. Attia, H. Di Benedetto, A. Graziani, P. Jaskula, Y. R. Kim, M. Maliszewski, J. Pais, C. Petit, C. Raab, D. Ragni, D. Rys, C. Sangiorgi, C. Sauzéat, A. Zofka, *Interlaboratory test to characterize the cyclic behavior of bituminous interlayers: an overview of testing equipment and protocols*  
 L. Porot, E. Chailleux, P. Apostolidis, J. Zhu, A. Margaritis, L. Tsantilis, *Complex bituminous binders, are current test methods suitable for?*
- 14:35 – 15:15 ROOM A – Poster session 1**  
 Chairman: William G. Buttlar

R. Freire, H. Di Benedetto, C. Sauzéat, S. Pouget, D. Lesueur, *Effect of fiberglass geogrid reinforcement to fatigue resistance of bituminous mixtures*

B. Pouteau, A. Martin, K. Berrada, J.-A. Decamps, P. Diez, *Impact of the performance of the asphalt concrete and the geogrid materials on the fatigue of geogrid-reinforced asphalt concrete – experimental study*

D. Vizzari, E. Genesseeux, S. Lavaud, S. Bouron, E. Chailleux, *Surface dressing treatment for applications on solar roads*

N. Viscione, F. Russo, R. Veropalumbo, C. Oreto, *Assessing geometric features impact of laboratory specimens on ITS variation*

C. Brondani, C. Faccin, K. W. Kraemer, F. D. Boeira, L. Pivoto Specht, A. V. Nummer, *Asphalt aggregate adhesion: Study of the influence of the morphological, chemical and mineralogical properties of different aggregates from southern Brazil*

D. Ramirez Cardona, H. Di Benedetto, C. Sauzeat, N. Calon, *Fatigue and moisture damage resistance of bituminous mixtures for railway trackbeds*

**15:15 – 15:30 Coffee break**

**15:30 – 17:10 ROOM A – Parallel session 1.3.A: Emulsions**

Chairman: Gordon Airey

15:30 – 15:50 A. Thiriet, J.-M. Piau, E. Chailleux, F. Delfosse, C. Leroy, V. Gaudefroy, *Assessment of the behavior of emulsified asphalt mixes during curing*

15:50 – 16:10 A. Al-Mohammedawi, K. Mollenhauer, *A comparative study on the fatigue behavior of bitumen emulsion mastic, modified with various active fillers*

16:10 – 16:30 M. Miljkovic, A. Graziani, C. Mignini, *Interphase relations in the characterisation of bitumen emulsion-cement composites*

16:30 – 16:50 S. Jatav, P. Bouriat, P. Anaclet, Y. Hung, F. Rondelez, C. Dicharry, *Roles of exogenous cationic and endogenous bitumen surfactants in the stability of Bitumen/Water Interfaces*

16:50 – 17:10 W. Sorociak, K. Konieczna, J. B. Król., D. Żymełka, K. J. Kowalski, *Evaluation of aging processes in binders stabilised from cationic bituminous emulsion*

**15:30 – 17:10 ROOM B – Parallel session 1.3.B: Healing 2**

Chairman: Eshan Dave

15:30 – 15:50 N. Ruiz-Riancho, T. Saadon, A. Garcia, R. Hudson-Griffiths, *Enhanced self-healing properties in stone mastic asphalt with encapsulated bitumen rejuvenators*

15:50 – 16:10 R. Aurilio, M. Aurilio, H. Baaj, *The effect of a chemical warm mix additive on the self-healing capability of bitumen*

16:10 – 16:30 L. Leite, F. Aragão, T. Macedo, P. Osmari, M. Cravo, L. Nascimento, L. Dantas, *Effects of chemical and microstructural constituents on the healing characteristics of asphalt binders*

16:30 – 16:50 J.-L. Le, M. Marasteanu, J. Matias De Oliveira, M. Turos, *Investigations of electrical conductivity of Graphite Nano-Platelet (GNP)-taconite modified asphalt binders*

- 16:50 – 17:10 A. Gonzalez, J. Valderrama, J. Norambuena-Contreras, *Microwave crack-healing capability on asphalt mixtures with silicon carbide*
- 15:30 – 17:10 ROOM C – Parallel session 1.3.C: Recycling 1**  
 Chairwoman: Jo Sias
- 15:30 – 15:50 N. Garg, H. Kazmee, L. Ricalde, *Use of Recycled Asphalt Pavement (RAP) in Airport Pavements*
- 15:50 – 16:10 S. Noto, S. Mangiafico, E. Romeo, C. Sauzéat, H. Di Benedetto, G. Tebaldi, *Experimental tests on diffusion phenomenon between two different bitumens*
- 16:10 – 16:30 W. L. G. Ferreira, V. Castelo Branco, K. Vasconcelos, A. Bhasin, *Evaluate the impact of Reclaimed Asphalt Pavement (RAP) binder activation on its shape properties*
- 16:30 – 16:50 F. Martinho, L. Picado-Santos, F. Lemos, *New modified recycled mastic for demanding and sustainable asphalt mixtures*
- 16:50 – 17:10 A. Filonzi, R. Hajj, S. Komaragiri, A. Bhasin, *Investigating the use of a binder cohesion test to evaluate cracking resistance of asphalt mixtures*

**Tuesday, December 15<sup>th</sup> 2020**

- 10:00 – 11:20 ROOM A – Parallel session 2.1.A: Binder modification**  
 Chairwoman: Greet Leegwater
- 10:00 – 10:20 G. White, *Comparing wet mixed and dry mixed binder modification with recycled waste plastic*
- 10:20 – 10:40 Q. T. Nguyen, T. T. N. Hoang, X. C. Bui, V. C. La, T. K. D. Tran, Q. P. Nguyen, N. H. Nguyen, *Mechanical properties of bitumen and asphalt mixture modified with polymer additives*
- 10:40 – 11:00 R. Patel, V. Nanjegowda, M. Jagadeesh, B. Krishna Prapoorna, *Characterization of aluminosilicate-based warm-mix asphalt additive using experimental techniques*
- 11:00 – 11:20 F. Xiao, W. Jiayu, *Rheological properties of derived fractions composed of aromatics, resins, and asphaltenes*
- 10:00 – 11:20 ROOM B – Parallel session 2.1.B: Mixtures and low temperatures 1**  
 Chairman: Christophe Petit
- 10:00 – 10:20 A. Figueroa, M. Solaimanian, *Humidity Damage Index (HDI) of recovered asphalt from Reclaimed Asphalt Pavement (RAP) using different aggregates*
- 10:20 – 10:40 D. T. Tran, C. Sauzéat, H. Di Benedetto, B. Pouteau, *Effects of water saturation and freeze-thaw cycles on fatigue behaviour of bituminous mixtures*
- 10:40 – 11:00 D. Lesueur, P. Metais, P. Pibis, S. El Bedoui, H. Ruat, S. Bouron, F. Hammoum, *Improving the durability of asphalt mixtures with hydrated lime: Field results from recent French sections*
- 11:00 – 11:20 L. Lovqvist, J. Zhu, R. Balieu, N. Kringos, *A critical analysis of the standard used to evaluate de-icing damage in asphalt materials*

**10:00 – 11:20 ROOM C – Parallel session 2.1.C: Aging 1**

Chairwoman: Lily Poulidakos

10:00 – 10:20 G. Pipintakos, U. Muhlich, H. Soenen, A. Varveri, S. Van Doorslaer, H. Y. V. Ching, P. Sjoval, *Experimental validation of the dual-oxidation routes in bituminous binders*

10:20 – 10:40 J. Mirwald, S. Werkovits, I. Camargo, D. Maschauer, B. Hofko, H. Grothe, *Time and surface dependent effects of bitumen - Comparison of surface and bulk*

10:40 – 11:00 M. Guo, H. Liu, Y. Jiao, Y. Tan, *Study on reversibility of aging and recycling of bitumen based on rheology, adhesion and chemical properties*

11:00 – 11:20 H. Soenen, X. Carbonneau, X. Lu, C. Robertus, T. Benoit, *Evaluation of the properties of bituminous binders recovered from various sites in Europe*

**11:20 – 11:35 Coffee break**

**11:35 – 12:55 ROOM A – Parallel session 2.2.A: Bio-binders**

Chairman: Fernando Moreno-Navarro

11:35 – 11:55 J. Blanc, E. Chailleux, P. Hornych, C. Williams, Z. Sotoodeh-Nia, L. Porot, S. Pouget, *From laboratory mixes to full scale test: rutting evaluation of bio-recycled asphalt mixes*

11:55 – 12:15 V. Gaudefroy, D. Lo Presti, L. Porot, S. Pouget, J.-P. Planche, C. Williams, E. Chailleux, *Organic compounds evaluation from fumes generated in laboratory by bio-recycled asphalt mixtures*

12:15 – 12:35 A. Weir, G. Airey, C. Snape, A. Jimenez Del Barco Carrion, *Rheological characterisation of modified bitumens with biodiesel-derived biobinders*

12:35 – 12:55 L. Espinosa Ruiz, F. Gadler, R. V. Mota, K. Vasconcelos, L. L. B. Bernucci, *Comparison between rheological behavior of a neat asphalt binder and a bio-binder from renewable source*

**11:35 – 12:55 ROOM B – Parallel session 2.2.B: Mixtures and low temperatures 2**

Chairman: Manfred Partl

11:35 – 11:55 W. Bańkowski, M. Gajewski, R. Horodecka, K. Mirski, *Laboratory assessment of low temperature resistance of high modulus asphalt concrete in relation to climatic conditions in Poland*

11:55 – 12:15 S. S. Kim, M. Akentuna, M. Nazzal, *Coefficient of thermal expansion and thermally induced internal cracking of asphalt mixes*

12:15 – 12:35 Y. Berraha, D. Perraton, G. Doré, M. Vaillancourt, *Cracked asphalt pavement behaviour under thermal and load cycles - Laboratory investigation using accelerated loading system*

12:35 – 12:55 C. Neyret, S. Lamothe, D. Perraton, A. Carter, M. Proteau, H. Di Benedetto, B. Pouteau, *Investigation of cold regions dense graded high modulus asphalt concrete sensitivity to bitumen and filler content*

**11:35 – 12:55 ROOM C – Parallel session 2.2.C: Aging 2**

Chairwoman: María del Carmen Rubio-Gámez

11:35 – 11:55 A. Gudmarsson, A. Ahmed, *Monitoring stiffness evolution of asphalt concrete through modal analysis*

11:55 – 12:15 D. Maschauer, J. Mirwald, B. Hofko, H. Grothe, *Viennese Aging Procedure (VAPro): adaption for low-temperature testing*

- 12:15 – 12:35 R. Jing, A. Varveri, X. Liu, T. Scarpas, S. Erkens, *Ageing behaviour of porous and dense asphalt mixtures in the field*
- 12:35 – 12:55 R. Siroma, M. L. Nguyen, P. Hornykch, E. Chailleux, *A literature review of bitumen aging: from laboratory procedures to field evaluation*
- 12:55 – 13:45 **Lunch**
- 13:45 – 14:35 ROOM A – Plenary session 2: RILEM TC 278-CHA**  
 Chairman: Hassan Baaj  
 G. Leegwater, A. Taboković, O. Baglieri, F. Hammoum, H. Baaj, *Terms and definitions on crack-healing and restoration of mechanical properties in bituminous materials*  
 O. Baglieri, H. Baaj, F. Canestrari, C. Wang, F. Hammoum, L. Tsantilis, F. Cardone, *Testing methods to assess healing potential of bituminous binders*
- 14:35 – 15:15 ROOM A – Poster session 2**  
 Chairman: William G. Buttlar  
A. Forton, S. Mangiafico, C. Sauzéat, H. Di Benedetto, P. Marc, *Estimation of complex shear modulus of binder blends produced with RAP binder and rejuvenator*  
O. Eman, Y. Zhang, *Multiphysics simulation and validation of field ageing of asphalt pavements*  
G. Giancontieri, S. Pouget, D. Lo Presti, *Improved testing setup for real-time monitoring of PMBs during manufacturing and rotational viscosity measurements*  
F. Preti, B. Chagas Silva Gouveia, E. Romeo, G. Tebaldi, E. V. Dave, J. E. Sias, *Elasto-plastic model for bitumen stabilized materials using triaxial testing and finite element modelling*  
D. Grossegger, A. Garcia, G. Airey, *Crack Self-Healing in Asphalt as a Flow Process*  
M. Aurilio, H. Baaj, *Examining the effects of a self-healing elastomer on the properties of bitumen*
- 15:15 – 15:30 **Coffee break**
- 15:30 – 17:10 ROOM A – Parallel session 2.3.A: Cold recycling**  
 Chairman: Alan Carter
- 15:30 – 15:50 L. Gaillard, C. Chazallon, P. Hornykch, J.-C. Quezada, J.-L. Geffard, *The influence of the mastic coating of untreated reclaimed asphalt pavement on the permanent and resilient behaviours*
- 15:50 – 16:10 C. Mignini, F. Cardone, A. Graziani, *Experimental study on the grading distribution of cold recycled asphalt mixtures produced with bitumen emulsion and high strength cement*
- 16:10 – 16:30 B. Chagas Silva Gouveia, F. Preti, E. Romeo, J. Sias, E. Dave, G. Tebaldi, *Rutting performance analysis for pavements with bituminous stabilized mixtures as base layers*
- 16:30 – 16:50 W. Ma, D. Wang, F. Gu, A. Taylor, R. West, *Effect of RAP and binder properties on indirect tensile strength and dynamic modulus of cold recycled foamed asphalt mixtures with high RAP content*

16:50 – 17:10 C. Ogbo, E. Dave Eshan, J. Sias, *Laboratory performance of Stabilized base with 100% Reclaimed Asphalt Pavement (RAP) using Portland cement, bitumen emulsion and foamed-bitumen*

**15:30 – 17:10 ROOM B – Parallel session 2.3.B: Pavement properties 1**

Chairman: Daniel Perraton

15:30 – 15:50 X.-Q. Le, M. L. Nguyen, P. Hornych, Q. T. Nguyen, *Evaluation of pavement damage through the analysis of asphalt layer modulus and strain evolutions during an accelerated pavement test*

15:50 – 16:10 J.-C. Carret, A. Carter, *Effects of adding a geotextile into a pavement structure on FWD experimental data and estimated pavement remaining service life*

16:10 – 16:30 M. Gharbi, M. Broutin, I. Boulkhemair, M. L. Nguyen, A. Chabot, *Analysis of ovalization measurements on flexible airfield pavement under HWD dynamic impulse load*

16:30 – 16:50 F. Tarpoudi Baheri, T. Schutzius, L. Poulikakos, D. Poulikakos, M. Rico Luengo, *The effect of additives on water vapor condensation on bituminous surfaces*

16:50 – 17:10 J. Habbouche, P. Sebaaly, E. Hajj, M. Piratheepan, *Full-scale pavement testing of a high polymer modified asphalt concrete mixture*

**15:30 – 17:10 ROOM C – Parallel session 2.3.C: Aging 3**

Chairman: Denis Jelagin

15:30 – 15:50 J. Noel, M. Rezwan Quddus, P. Pirzadeh, P. Kriz, R. Shirts, *Comparison of Alternate Binder Aging Methods*

15:50 – 16:10 R. Zhang, J. Sias, E. Dave, *Evolution of the thermo-rheological indices of asphalt binders with aging*

16:10 – 16:30 A. Baldi, R. E. Villegas-Villegas, J. P. Aguiar-Moya, L. G. Loria-Salazar, *The chemistry behind rheological and thermal transitions of oxidized bitumen*

16:30 – 16:50 R. Hossain, S. Arafat, D. Salomon, N. Wasiuddin, *A comparative study of RTFO, PAV and UV aging using FT-IR and DSR Tests*

16:50 – 17:10 J. Adams, M. Elwardany, J.-P. Planche, Y. Hung, J. Zhu, S. Schroeder, M. Mouazen, *Multi-criteria framework to evaluate the oxidative ageing resistance of bitumen binders*

**Wednesday, December 16<sup>th</sup> 2020**

**10:00 – 11:20 ROOM A – Parallel session 3.1.A: Recycling 2**

Chairman: Emiliano Pasquini

10:00 – 10:20 G. White, A. Jamshidi, *Extending the use of RAP in airport asphalt resurfacing*

10:20 – 10:40 G. Ferrotti, F. Canestrari, J. Xiaotian, F. Cardone, *Use of modified reclaimed asphalt in warm mixtures*

- 10:40 – 11:00 K. L. Roja, B. Vajipeyajula, E. Masad, *Multi-scale evaluation of asphalt binders containing different proportions of Reclaimed Asphalt Pavement (RAP)*
- 11:00 – 11:20 N. Vlasopoulos, N. Tapsoba, D. T. Dao, H. Di Benedetto, C. Sauzéat, M. Ech, N. Miravalls, *Impact of viscoelastic and fatigue behavior of asphalt mixtures made with RAP and asphalt shingle on the life cycle assessment results*
- 10:00 – 11:20 ROOM B – Parallel session 3.1.B: Viscoelasticity and permanent deformation of bituminous materials 1**  
 Chairman: Paul Marsac
- 10:00 – 10:20 J. Buchner, M. P. Wistuba, T. Hilmer, *Creep properties of asphalt binder, asphalt mastic and asphalt mixture*
- 10:20 – 10:40 B. Lira, J. Ekblad, R. Lundstrom, *Influence of aggregate gradation on the permanent deformation of asphalt mixtures*
- 10:40 – 11:00 G. Airey, J. Sias, H. Di Benedetto, G. Rowe, C. Sauzéat, *Black space evaluation of performance and distress mechanisms in asphalt materials*
- 11:00 – 11:20 S. Benaboud, M. Takarli, F. Allou, F. Dubois, A. Nicolaï, B. Pouteau, A. Beghin, *Efficiency of ultrasonic pulse velocity test in the determination of residual asphalt mix pavement properties*
- 10:00 – 11:20 ROOM C – Parallel session 3.1.C: Pavement properties 2**  
 Chairman: Andreas Loizos
- 10:00 – 10:20 P. Rossel, J. Perret, M. Ould-Henia, M. Delaby, *An investigation on longitudinal unevenness indicators and their potential on surface characterisation*
- 10:20 – 10:40 M. Kane, *Determining the prominence of texture scales on road skid resistance*
- 10:40 – 11:00 D. Ramirez Cardona, S. Pouget, F. Olard, G. Van Der Houwen, M. Vlak, S. Sénéchal, N. Calon, *A new bituminous ballast-less and sleeper-less thin railway track structure*
- 11:00 – 11:20 D. Khairallah, J. Blanc, P. Hornych, L.-M. Cottineau, J.-M. Piau, O. Chupin, D. Ramirez Cardona, *Monitoring of railway structures of high-speed line Bretagne - Pays de la Loire with bituminous (GB) and granular sublayers (UGM)*
- 11:20 – 11:35 **Coffee break**
- 11:35 – 12:55 ROOM A – Parallel session 3.2.A: Rejuvenators in bituminous materials**  
 Chairman: Bernhard Hofko
- 11:35 – 11:55 M. Orešković, L. Porot, S. Trifunović, G. Mladenović, *Empirical, rheological and chemical properties of aged binder with rejuvenators at different ageing levels*
- 11:55 – 12:15 N. Piérard, S. Vansteenkiste, A. Vanelstraete, P. Peaureaux, *Methodology for evaluating the performance of bituminous binders based on rheological indicators: impact of the use of a rejuvenator*
- 12:15 – 12:35 D. Dalmazzo, L. Urbano, P. P. Riviera, E. Santagata, *Testing of reclaimed asphalt model systems for the evaluation of the effectiveness of rejuvenators*



- 12:35 – 12:55 E. Bocci, E. Prosperi, P. Marsac, *Rheological modelling of the bitumen from reclaimed asphalt with rejuvenation and re-ageing*
- 11:35 – 12:55 ROOM B – Parallel session 3.2.B: Viscoelasticity and permanent deformation of bituminous materials 2**  
 Chairman: Francesco Canestrari
- 11:35 – 11:55 P. Tavassoti, T. Hama Ameen, G. Cascante, H. Baaj, *Improving the predictive master curve of bituminous mixtures using ultrasonic measurements*
- 11:55 – 12:15 E. Paniz Possebon, L. Pivoto Specht, H. Di Benedetto, S Lisboa. Schuster, D. da Silva Pereira, *Rheological properties and 2S2P1D modeling of seven bituminous mixtures with different brazilian bitumens*
- 12:15 – 12:35 A. Vale, J. Bastos, J. Soares, *Evaluate the new approach for characterizing the performance of asphalt binders through the multiple stress creep and recovery test*
- 12:35 – 12:55 T. B. Moghaddam, H. Baaj, *Effects of aggregate shape parameters and gradation on High-Modulus Asphalt mix performance*
- 11:35 – 12:55 ROOM C – Parallel session 3.2.C: Miscellaneous**  
 Chairwoman: Christiane Raab
- 11:35 – 11:55 P. Jaskula, M. Stienss, D. Rys, C. Szydlowski, *The use of direct shear test for optimization of interlayer bonding under a poroelastic layer*
- 11:55 – 12:15 C. Holldorb, A. Brzuska, S. Cypra, M. Oeser, N. Carreno, M. Zeilinger, *Sustainability assessment of novel performance enhancing chemical bitumen additive*
- 12:15 – 12:35 M. C. Rubio-Gómez, F. Moreno-Navarro, J. Sierra, M. Sol-Sanchez, *A laboratory procedure for improving the design of road rehabilitation actions: study of a real case in a highway pavement*
- 12:35 – 12:55 M. Mouazen, Y. Hung, S. Krafft, F. Geisler, A. Ngo, O. Moglia, V. Gaudefroy, *GLOBE: An innovative technical solution to ensure waste free cold logistics of bituminous binders and pavement materials characterization*
- 12:55 – 13:45 **Lunch**
- 13:45 – 14:35 ROOM A – Plenary session 3: RILEM TC 264-RAP**  
 Chairman: Gabriele Tebaldi
- D. Wang, A. Cannone Falchetto, M. Hugener, L. Porot, A. Kawakami, B. Hofko, A. Grilli, E. Pasquini, M. Pasetto, H. Tabatabaee, H. Zhai, M. Sá da Costa, H. Soenen, P. Kara De Maeijer, W. Van den bergh, F. Cardone, A. Carter, K. Vasconcelos, X. Carbonneau, A. Lorserie, G. Mladenović, M. Orešković, T. Koudelka, P. Coufalik, E. Bocci, R. Zhang, E. Dave, G. Tebaldi, *Effect of aging on the rheological properties of blends of virgin and rejuvenated RA binders*
- P. Marsac, E. Bocci, F. Cardone, A. Cannone Falchetto, X. Carbonneau, M. Zaumanis, A. Carter, M. C. Rubio-Gómez, M. Del Sol Sánchez, E. V. Dave, G. Tebaldi, *International evaluation of the performance of Warm Mix Asphalts with high Reclaimed Asphalt content*
- A. Grilli, S. Raschia, D. Perraton, A. Carter, A. Rahmanbeiki, P. Kara De

Maeijer, D. Lo Presti, G. Airey, C. Ogbo, E. V. Dave, G. Tebaldi,  
*Experimental investigation on water loss and stiffness of CBTM using  
 different RA sources*

**14:35 – 14:50 Coffee break**

**14:50 – 16:50 ROOM A – Parallel session 3.3.A: Recycling 3**

Chairwoman: Kamilla Vasconcelos

14:50 – 15:10 M. Pasetto, E. Pasquini, G. Giacomello, F. Moreno-Navarro, R. Tauste-  
 Martinez, A. Cannone Falchetto, M. Vaillancourt, *An interlaboratory test  
 program on the extensive use of waste aggregates in asphalt mixtures:  
 preliminary steps*

15:10 – 15:30 A. Pedraza, C. Sauzéat, H. Di Benedetto, S. Pouget, *Properties at low  
 temperatures of warm mix containing high content of multi-recycled  
 RAP*

15:30 – 15:50 P. Pirzadeh, H. Baaj, *Tracking degree of blending between recycled and  
 virgin binder through asphalt mix phase angle*

15:50 – 16:10 Y. Yan, D. Hernando, B. Park, G. Tebaldi, R. Roque, *Effect of RAP  
 gradation on fracture tolerance of asphalt mixtures*

16:10 – 16:30 A. Daoudi, A. Dony, A. Carter, L. Ziyani, D. Perraton, *Combined recycling  
 of RAS and RAP: Experimental and modeling approach*

16:30 – 16:50 P. Rath, J. Meister, B. Jahangiri, H. Majidifard, W. Buttler, *Evaluation of  
 Engineered Crumb Rubber (ECR) performance characteristics, including  
 warm-mix equivalence with polymer, draindown prevention, and  
 release enhancement*

**14:50 – 16:50 ROOM B – Parallel session 3.3.B: Cracking of bituminous mixtures**

Chairman: Michael Wistuba

14:50 – 15:10 R. Botella, F. E. Pérez-Jiménez., R. Miró, A. H. Martínez, T. López-Montero,  
*Temperature and loading rate susceptibility of bituminous mixtures on  
 monotonic testing*

15:10 – 15:30 C. Raab, M. Arraigada, H. Ibrahimi, *Analysis of low temperature cracking  
 behaviour at binder, mastic and asphalt concrete levels*

15:30 – 15:50 K. Haslett, E. Dave, J. Sias, *Evaluation of cracking performance indices  
 from disk-shaped compact tension testing*

15:50 – 16:10 L. Leon, K. Bovell, *Evaluation of fracture resistance of SMA mixtures with  
 various percentages of TLA-RAP through the semi-circular bend (SCB)  
 test*

16:10 – 16:30 H. Bahia, J. Jiang, *Mortar thickness distribution and its relationship to  
 aging and cracking resistance of asphalt mixtures*

16:30 – 16:50 L. Jiao, J. Harvey, M. Elkashef, R. Wu, D. Jones, *Evaluating the cracking  
 performance of asphalt mixes using four-point bending beam fatigue and  
 semicircular bending testing*

**14:50 – 16:50 ROOM C – Parallel session 3.3.C: Modelling 2**

Chairman: Imad Al-Qadi

14:50 – 15:10 Q. Adam, G. Englmaier, E. Levenberg, A. Skar, *Active Mitigation of Low-  
 Temperature Cracking in Asphalt Pavements*

- 15:10 – 15:30 J.-M. Roussel, H. Di Benedetto, C. Sauzéat, M. Broutin, *Influence of linear viscoelastic behavior of layer interface for heavy weight deflectometer test*
- 15:30 – 15:50 H. Fadil, D. Jelagin, M. Partl, *Predicting the master curve of bituminous mastics with micromechanical modeling*
- 15:50 – 16:10 L. De Oliveira, L. Da Silva, L. Babadopulos, J. Soares, *Relationship between linear viscoelastic properties of asphalt binders and the corresponding mixtures*
- 16:10 – 16:30 M. Xu, J.-L. Le, T. Yan, M. Turos, M. Marasteanu, D. Feng, *Investigation of Fracture Behavior of Recycled Asphalt Mixtures using a Discrete Element Computational Model*
- 16:30 – 16:50 Z. You, L. You, Q. Dai, T. Spyriouni, *Understanding of structural and rheological properties of asphalt model using molecular dynamics simulation*
- 16:50 – 17:20 ROOM A – Closing ceremony**  
Hervé Di Benedetto  
Cédric Sauzéat

**Thursday, December 17<sup>th</sup> 2020**

- 9:00 – 12:00 RILEM TC 279-WMR workshop**  
Organisers: Lily Poulikakos, Emiliano Pasquini
- 12:00 – 13:30 Lunch**
- 13:30 – 16:30 RILEM TC 264-RAP workshop**  
Organisers: Gabriele Tebaldi, Eshan Dave

Information on Zoom connection links are provided by the organisers to registered participants.