

## Programme of DRMS2025

Author underlined → presenting author

\* Plenary lecture

<b>Thursday 13 March 2025</b>	
8:40	<b>DRMS2025 Opening (Room B032)</b>
	<b>Session 1 – Diagnostics and maintenance methodologies (Chair: LFM da Silva and A Silva)</b>
	<b>Room B032</b>
9:00	Seminal developments in the durability assessment of airframes, AM parts and cold spray repairs ( <b>DRMS25_1</b> ) <u>R Jones</u> (Swinburne University of Technology, Australia), ASM Ang, R Aston, N Phan
9:20	Integral risk-oriented approach in comprehensive assessment of visual environment ( <b>DRMS25_23</b> ) <u>VM Zhurbenko</u> (Ukrainian State University of Science and Technologies NNI "Prydniprovsk State Academy of Civil Engineering and Architecture", Ukraine), AS Beliko, P Sankov
9:40	Guided ultrasonic wave based damage detection in fiber metal laminates ( <b>DRMS25_25</b> ) <u>WF Nikiema</u> , <u>N Rauter</u> (Helmut-Schmidt-University / University of the Federal Armed Forces Hamburg, Germany)
10:00	When durability meets efficiency: The role of maintenance in sustainable building lifecycles ( <b>DRMS25_27</b> ) C Ferreira, W Castro, J Valença, MP Mendes, C Reinhart, <u>A Silva</u> (University of Lisbon, Portugal)
10:20	A machine learning approach for risk-based damage prognosis in engineering populations ( <b>DRMS25_30</b> ) <u>G Tsialiamanis</u> (The University of Sheffield, UK), N Dervilis, K Worden, AJ Hughes
<b>10:40-11:00</b>	<b>COFFEE BREAK (Room under the Auditorium)</b>
11:00*	An innovative and comprehensive strategy to design and monitor composite structures under in-service fatigue loadings ( <b>DRMS25_43</b> ) <u>M Quaresimin</u> (University of Padova, Italy), PA Carraro, L Maragoni, M Zappalorto
	<b>Room B032</b>
	<b>Session 2 – Fatigue and fracture characterization (Chair: M Quaresimin and A Akhavan-Safar)</b>
	<b>Room B032</b>
11:40	Mechanical degradation and failure mechanism of additively manufactured carbon reinforced polymers under tensile loading ( <b>DRMS25_24</b> ) M Mieloszyk, <u>S Bhadra</u> (Polish Academy of Sciences, Poland)
12:00	Durability of transporting pipeline girth welds based on full-scale fatigue and burst tests of replaced pipeline sections ( <b>DRMS25_29</b> ) <u>J Lukács</u> (University of Miskolc, Hungary)

12:20	Fatigue analysis of auxetic metamaterial for airless tires using finite element method ( <b>DRMS25_34</b> ) <u>AT Ubando</u> (De La Salle University, Philippines), AP Conversion, NRE Lim, SMA Conejos
12:40	Durability characterization of adhesively bonded structures: A fatigue crack growth perspective ( <b>DRMS25_5</b> ) <u>A Akhavan-Safar</u> (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva
<b>13:00-14:00</b>	<b>LUNCH BREAK (Room under the Auditorium)</b>
	<b>Session 3 – Durability in civil engineering applications I (Chair: AZ Sampaio and LFM da Silva)</b>
	<b>Room B032</b>
14:00	Acid resistance of blended cement mortar with calcined clay ( <b>DRMS25_2</b> ) <u>MS Meddah</u> (Sultan Qaboos University, Oman), OH Najjar, K Al Jabri, AW Hago
14:20	Designing of new viaducts to be corrosion free and major-repair free: Experience from Mauritius metro project ( <b>DRMS25_3</b> ) <u>SA Faroz</u> (Infrastructure Risk Management, India)
14:40	HBIM methodology applied on the reconversion of a heritage building: the structural project ( <b>DRMS25_4</b> ) <u>AZ Sampaio</u> (University of Lisbon, Portugal), AM Pinto, AM Gomes
15:00	Experimental verification of post-fire brittleness for structural steel using the instrumented Charpy impact test ( <b>DRMS25_16</b> ) <u>M Maslak</u> (Cracow University of Technology, Poland), M Stankiewicz, P Zajdel
15:20	Durability performance of inorganic PCM in concrete for fire protection applications ( <b>DRMS25_22</b> ) <u>KADYT Kahandawa Arachchi</u> (Western Sydney University, Australia), O Mirza, F Mashiri, SW Pathirana
15:40	Finite element modeling of shoring and reshoring system during construction of reinforced concrete multi-story buildings ( <b>DRMS25_33</b> ) <u>JK Foula</u> (University of Quebec, Canada), G El-Saikaly, A Abo-El-Ezz
<b>16:00-16:20</b>	<b>COFFEE BREAK (Room under the Auditorium)</b>
	<b>Session 4 – Repair of composite materials and structures (Chair: AT Marques and RJC Carbas)</b>
	<b>Room B032</b>
16:20	Debondable bio-adhesive wood joints: Performance evaluation ( <b>DRMS25_11</b> ) <u>RJC Carbas</u> (INEGI, Portugal), Sh Jalali, EAS Marques, LFM da Silva
16:40	Repair of metal basic structures of industrial equipment during their prolonging the service life with the use of composite materials ( <b>DRMS25_13</b> ) <u>S Belodedenko</u> (Ukrainian State University of Science and Technologies, Dnipro, Ukraine), G Bilichenko, D Rassokhin
17:00	Assessment of seismic performance of reinforced concrete bridge piers confined with FRP composites ( <b>DRMS25_32</b> ) <u>G El-Saikaly</u> (University of Quebec, Canada), A Abo-El-Ezz, M Nassar
17:20	Development of a demonstrator to validate a numerical approach for bonded repair ( <b>DRMS25_45</b> ) <u>AN Zedom</u> (Hamburg University of Applied Sciences, Germany), M Linke, JA García-Manrique
17:40	Hybrid reinforced composite substrates in adhesively bonded joints under quasi-static loading ( <b>DRMS25_9</b> ) <u>H Malekinejad</u> (INEGI, Portugal), RJC Carbas, EAS Marques, LFM da Silva

18:00	Comparison of adhesion strength of tricalcium phosphate coatings on titanium versus on titanium dioxide by first-principle calculations ( <b>DRMS25_54</b> ) <u>AV Balueva</u> (University of North Georgia, USA), <u>IN Dashevskiy</u> , <u>D Lisovenko</u> , <u>W Kwiatkowski</u> , <u>P Todebush</u>	
19:00	<b>Poster session and RECEPTION (Room under the Auditorium)</b>	
<b>Fatigue and fracture characterization</b>		
Poster 1	Humidity's critical impact on the durability and load-bearing capacity of bonded joints ( <b>DRMS25_6</b> )	<u>A Akhavan-Safar</u> (INEGI, Portugal), <u>RJC Carbas</u> , <u>EAS Marques</u> , <u>LFM da Silva</u>
Poster 2	Failure analysis of scrap shear knives ( <b>DRMS25_59</b> )	<u>F Lukša</u> (University of Split, Croatia), <u>Ž Domazet</u>
<b>Structural joints durability</b>		
Poster 3	Enhancing performance of adhesive joint using bio-inspired helicoidal composite substrates ( <b>DRMS25_10</b> )	<u>H Malekinejad</u> (INEGI, Portugal), <u>RCJ Carbas</u> , <u>EAS Marques</u> , <u>LFM da Silva</u>
Poster 4	The performance of adhesive joints with bent composite adherends ( <b>DRMS25_12</b> )	<u>RCJ Carbas</u> (INEGI, Portugal), <u>VDC Pires</u> , <u>BD Simões</u> , <u>EAS Marques</u> , <u>LFM da Silva</u>
Poster 5	Multimaterial solid-state joining processes for structural repair and reinforcement ( <b>DRMS25_19</b> )	<u>EAS Marques</u> (University of Porto, Portugal), <u>RJC Carbas</u> , <u>R Beygi</u> , <u>LFM da Silva</u>
<b>Creep failure processes</b>		
Poster 6	Characterization and prediction of static and cyclic creep behaviour in acrylic foam PSAs using an analytical model ( <b>DRMS25_8</b> )	<u>BD Simões</u> (INEGI, Portugal), <u>EMD Fernades</u> , <u>EAS Marques</u> , <u>RJC Carbas</u> , <u>S Maul</u> , <u>P Stihler</u> , <u>P Weißgraeber</u> , <u>LFM da Silva</u>
<b>Diagnostics and maintenance methodologies</b>		
Poster 7	Visualizing structural integrity: A flowchart approach to stadium maintenance ( <b>DRMS25_17</b> )	<u>PSt Louis</u> (Thornton Tomasetti, FL, USA)
Poster 8	Defect and damage detection in "green" laminates using shearography ( <b>DRMS25_39</b> )	<u>V Pagliarulo</u> (National Research Council, Italy), <u>C Saltarelli</u> , <u>M Paturzo</u> , <u>P Russo</u>
Poster 9	A machine learning and topic modeling approach to claims text analysis: A case study of Volvo's heavy haulers ( <b>DRMS25_57</b> )	<u>MM Nuttah</u> (Linnaeus University, Sweden), <u>J Cramsky</u> , <u>H Algabroun</u> , <u>O Zaida</u> , <u>L Håkansson</u>
Poster 10	Tool life investigation through modified chip breaker design parameters for extended cutting performance ( <b>DRMS25_58</b> )	<u>M F Zamri</u> , <u>S Lubis</u> , <u>AR Yusoff</u> (Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia)
<b>Durability in civil engineering applications</b>		
Poster 11	Inelastic buckling of reinforcing bars - constitutive model for cyclic loads ( <b>DRMS25_20</b> )	<u>J Korentz</u> (University of Zielona Góra, Poland)
Poster 12	Influence of the rate of aging hazards of components on the building degradation process ( <b>DRMS25_21</b> )	<u>B Nowogońska</u> (University of Zielona Góra, Poland)
Poster 13	Ultrasonic monitoring of bacterial self-healing in concrete structures ( <b>DRMS25_44</b> )	<u>B Sharma</u> (Thapar Institute of Engineering and Technology, India), <u>S Sharma</u> , <u>MS Reddy</u>

Poster 14	Fatigue strength investigation of prototype Under Sleeper Pads (USPs) and Under Ballast Mats (UBMs) made from recycled tyre rubber for a potential application in ballasted rail track systems <b>(DRMS25_47)</b>	<u>C Kraśkiewicz</u> (Warsaw University of Technology, Poland), K Konieczna
Poster 15	Advanced regression model for eco-friendly geopolymer mortar in enhancing durability of concrete structures <b>(DRMS25_60)</b>	VP Pilien, <u>JMC Ongpeng</u> (Del La Salle University, Philippines)
Poster 16	Corrosion performance of fiber-reinforced self-compacting concrete <b>(DRMS25_61)</b>	S Clement, <u>JMC Ongpeng</u> (Del La Salle University, Philippines)

<b>Friday 14 March 2025</b>	
	<b>Session 5 – Structural joints durability (Chair: C Sato and H Wan)</b>
	<b>Room B032</b>
8:40	Strength of adhesively bonded joints under stress conditions of compression-and shearing ( <b>DRMS25_49</b> ) T Yamazaki, K Ikeda, A Hayato, Y Sekiguchi, C Sato (Institute of Science Tokyo, Japan)
9:00	Investigation of modal testing effectiveness for a bolted joint looseness detection ( <b>DRMS25_52</b> ) AR Hosseinian, HM Navazi (Sharif University of Technology, Iran), SH Same
9:20	Evaluating peel testing behaviour of acrylic pressure-sensitive adhesives: Insights for enhancing durability ( <b>DRMS25_7</b> ) BD Simões (INEGI, Portugal), HC Sousa, EAS Marques, RJC Carbas, S Maul, P Stihler, P Weißgraeber, LFM da Silva
9:40	Analytical and numerical investigations of thread stripping in buttress threads ( <b>DRMS25_14</b> ) L Meouchy (INSA -Toulouse, France), A Daidie, M Paredes
10:00	Joining failures in industrial applications: Case studies on problem solving ( <b>DRMS25_18</b> ) EAS Marques (University of Porto, Portugal), RJC Carbas, A Akhavan-Safar, LFM da Silva
10:20	Study on the improvement of heterogeneous bonding performance by laser surface treatment ( <b>DRMS25_31</b> ) H Wan (Tongji University, China)
<b>10:40-11:00</b>	<b>COFFEE BREAK (Room under the Auditorium)</b>
11:00*	Durability of fibre-polymer composites for civil engineering structures: Recent research, design guidance and future perspectives ( <b>DRMS25_48</b> ) JR Correia (University of Lisbon, Portugal)
	<b>Room B032</b>
	<b>Session 6 – Durability in civil engineering applications II (Chair: JR Correia and J Nseir)</b>
	<b>Room B032</b>
11:40	Image processing techniques for corrosion assessment and retrofitting of aging steel structures ( <b>DRMS25_35</b> ) A Chira (University of Applied Sciences and Arts Western Switzerland HES-SO, Switzerland), J Nseir
12:00	From scan to sustainability: A comprehensive framework for retrofitting steel roofs ( <b>DRMS25_36</b> ) J Nseir (University of Applied Sciences and Arts Western Switzerland HES-SO, Switzerland), A Chira, H Brossard
12:20	Predicting durability of reinforced concrete bridge piers under seismic loads ( <b>DRMS25_42</b> ) M Sadeghi (Shahid Beheshti University, Iran), MR Shiravand
12:40	Crosstalk effects of data acquisition devices on acoustic emission-based inspections ( <b>DRMS25_53</b> ) GM Rezende (São Paulo State University, Brazil), FG Baptista
<b>13:00-14:00</b>	<b>LUNCH BREAK (Room under the Auditorium)</b>

	<b>Session 7 – Durability in aerospace and marine applications (Chair: A Chira and EAS Marques)</b>
	<b>Room B032</b>
14:00	Semi-analytical damage model applied to the assembly of a composite flange ( <b>DRMS25_40</b> ) <u>R Hammoum</u> (ISAE-SUPAERO, France), F Lachaud, A Daidie
14:20	Dimensionally stable structures for space applications ( <b>DRMS25_28</b> ) <u>RM Coelho</u> , P Teixeira, J Cerqueira, <u>AT Marques</u> (University of Porto, Portugal)
14:40	Cold expansion in preloaded bolted joints: a process to increase the fatigue performance of joints ( <b>DRMS25_15</b> ) <u>A Fau</u> (Institut Clément Ader, France), A Daidié, G Pichon
15:00	Remaining fatigue resistance of bolting assemblies in a wind turbine tower at the end of the planned service life ( <b>DRMS25_38</b> ) <u>M Schwarz</u> (Fraunhofer IGP, Germany), F Węgner, J Hinrichs, C Stolle, S Güres, M Seidel, R Glienke, W Flügge
15:20	Decades beneath the waves: Unveiling long-term trends in marine pipeline failures ( <b>DRMS25_26</b> ) <u>A Silva</u> (University of Lisbon, Portugal), MP Mendes, C Ferreira, L Evangelista, J Valença, CG Soares
15:40	Machine learning models for smart monitoring of wind energy farms ( <b>DRMS25_51</b> ) <u>M Shafiee</u> (University of Surrey, UK), DC Zachariadis
<b>16:00-16:20</b>	<b>COFFEE BREAK (Room under the Auditorium)</b>
	<b>Session 8 – Durability in civil engineering applications III (Chair: LFM da Silva and G Tsialiamanis)</b>
	<b>Room B032</b>
16:20	Extending the service life of orthotropic steel decks by using cold joining technique ( <b>DRMS25_37</b> ) <u>M Schröder</u> (Hochschule Wismar - University of Applied Sciences, Germany), R Glienke, F Kalkowsky, J Alex, W Flügge
16:40	Connection failure of near surface steel mounts used for flexural strengthening ( <b>DRMS25_41</b> ) <u>BD Upcin</u> (University of Stuttgart, Germany), V Mahadik, J Hofmann
17:00	Assessing the impact of a massive rockslide on Veveyse bridge using finite element simulations ( <b>DRMS25_46</b> ) S Ismail, <u>J Nseir</u> (University of Applied Sciences and Arts Western Switzerland HES-SO, Switzerland), F Kaddah
17:20	Influence of the corrosion damage of reinforcements due to concrete carbonation on its electrochemical behaviour after realkalisation procedures ( <b>DRMS25_50</b> ) <u>GR Meira</u> (Science and Technology of Paraíba, Brazil), PRR Ferreira, AA Meira
17:40	Influence of glass fiber configurations on dynamic characteristics and vibration control in additively manufactured composite beams: Experimental and computational analysis ( <b>DRMS25_55</b> ) <u>A Raza</u> (Kaunas University of Technology, Lithuania), R Rimašauskienė, M Mieloszyk
18:00	Regularities of coaction and improved design strategies for development of multicomponent inhibitive mixtures ( <b>DRMS25_56</b> ) <u>YuP Vyshnevskaya</u> (National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine), IV Brazhnyk
20:00	<b>DRMS 2025 BANQUET (Porto Caves)</b>