



ICMFM XX WROCLAW

15.09 – 17.09.2021



Day 1 - 15.09.21		
Time (GMT+2)	Event	Chairmen
9:00 - 9:15	Opening ceremony (room A)	
9:20 - 10:10	Keynote 1 - prof. Jaroslav Polak (room A)	Prof. Luca Susmel
10:15 - 11:05	Keynote 2 - prof. Hryhoriy Nykyforchyn (room A)	Prof. Shun-Peng Zhu
11:05 - 13:05	A - Session I (room A)	Prof. Zbigniew Marciniak, Prof. Jose A.F.O Correia

1. [ICMFM_XX_02] EFFECT OF THE CRITICAL VOLUME ON FATIGUE DAMAGING OF 42CRMO4+QT STEEL. Jan PAPUGA, Matěj MŽOUREK, Martin MATUŠŮ, Vladimír MÁRA, Jiří ČAPEK, Martin NESLÁDEK
2. [ICMFM_XX_13] ON HIGH- AND GIGACYCLE FATIGUE OF METALS AND ALLOYS AT AXIAL LOADING. Eleonora ZAVOYCHINSKAYA
3. [ICMFM_XX_15] EXPERIMENTAL AND NUMERICAL STUDY ON FAILURE MECHANISMS OF PROJECTILE/PLASTIC TARGET SYSTEM UNDER BALLISTIC IMPACT CONDITIONS. Paweł ŻOCHOWSKI, Marcin BAJKOWSKI, Roman GRYGORUK, Mariusz MAGIER, Dariusz PYKA, Mirosław BOCIAN, Krzysztof JAMROZIAK, Wojciech BURIAN
4. [ICMFM_XX_18] FATIGUE BEHAVIOUR OF PERLITIC STEELS. Lais AVILA, Isadora M. O. A. COSTA, Jérémie BOUQUEREL, Jean-Bernard VOGT
5. [ICMFM_XX_19] CALCULATION OF FLAT (PLANAR) COATED SUBSTRATE UNDER TENSILE AND THERMAL LOADS. Nikolay DOLGOV, Leonid VINOGRADOV, Ilmars BLUMBERGS
6. [ICMFM_XX_101] THE ROLE OF THE SURFACE IN CRACK INITIATION IN SHARP AND BI-MATERIAL NOTCHES. Jan KLUSÁK, Dalibor KOPP



11:05 - 13:05

A - Session II (room B)

Prof. Olha Zvirko,
Prof. Teresa
Morgado

1. [ICMFM_XX_41] FATIGUE BEHAVIOR OF EA4T AXLE STEEL PROCESSED BY SURFACE MECHANICAL ROLLING TREATMENT. Jie-Wei GAO, Ding LIAO, Shun-Peng ZHU, José A.F.O. CORREIA, Qingyuan WANG
2. [ICMFM_XX_43] SUSCEPTIBILITY OF STEEL SUCKER RODS OPERATED IN OIL WELL TO ENVIRONMENTALLY ASSISTED FATIGUE. Olha ZVIRKO, Oleksandr TSURYLNYK, Nataliya KRET
3. [ICMFM_XX_45] PREDICTIVE MODELLING OF ENVIRONMENTALLY ASSISTED FATIGUE. S. del Busto, C. Betegón, E. Martínez-Pañeda
4. [ICMFM_XX_48] STRUCTURAL INTEGRITY ANALYSIS OF THE NON-LOCKING CLIMBING CARABINERS AND THEIR SUSCEPTIBILITY TO FRACTURE. Agnieszka SZUST, Anna Wybraniec
5. [ICMFM_XX_49] CORROSION FATIGUE CRACK GROWTH IN STEEL OF STACKER CONVEYOR BOOM CONSIDERING OPERATIONAL DEGRADATION. Olha ZVIRKO, Oleksandr TSURYLNYK, Leonid POLISHCHUK
6. [ICMFM_XX_58] INCREASING THE DURABILITY OF CRITICAL PARTS IN HEAVY-DUTY INDUSTRIAL MACHINES BY DEEP CRYOGENIC TREATMENT. Pavlo KROT, Serhii BOBYR, Ivan Zharkov, Ihor Prykhodko, Przemyslaw Borkowski



13:05 – 14:05	Lunch	
14:05 – 14:55	Keynote 3 – prof. Aleksandar Sedmak (room A)	Prof. Dariusz Rozumek
14:55 – 16:15	A-Session III (room A)	Michał Bohm Ph.D., Prof. Aleksandar Sedmak

1. [ICMFM_XX_65] EVALUATING FATIGUE DAMAGE MODELLING OF METAL SANDWICH PANEL UNDER FOUR POINTS BENDING CYCLIC LOADING CONDITIONS. Mohd Khairul FAIDZI, Shahrum ABDULLAH, Mohamad Faizal ABDULLAH, Salvinder Singh Karam SINGH, Abdul Hadi AZMAN and David HUI
2. [ICMFM_XX_85] STUDY OF DEGRADATION MECHANISMS IN COMPOSITE MATERIALS USED FOR CONCRETE REINFORCEMENT. Tomasz MALATYŃSKI, Szymon DUDA, Bartosz BABIARCZUK, Joanna WARYCHA, Paweł ZIELONKA, Grzegorz LESIUK
3. [ICMFM_XX_87] DISTRIBUTION OF ΔK_{EFF} THROUGH THICKNESS: INFLUENCE ON FATIGUE CRACK GROWTH RATE CURVES. Calvín GIOVANNA, Escalero MIKEL, Zabala HARITZ, Muñiz MIGUEL,
4. [ICMFM_XX_89] FATIGUE BEHAVIOUR OF 51CRV4 STEEL OF PARABOLIC LEAF SPRINGS APPLIED IN FREIGHT WAGONS. Vítor M.G. GOMES, José CORREIA, Miguel FIGUEIREDO, Rui CALÇADA, Roberto S. BARBOSA, Abílio M. P. de JESUS



14:55 - 17:15

B - Session IV (room B)

Prof. Jan Papuga,
Prof. Dariusz
Rozumek,

1. [ICMFM_XX_01] FATIGUE ANALYSIS OF THIN-WALLED WELDED HOLLOW SECTION JOINTS. *Martin MACHAČ, Jan PAPUGA, Karel DOUBRAVA, Jakub FIŠER*
2. [ICMFM_XX_04] FINITE ELEMENT ANALYSIS OF CRACK GROWTH RESISTANCE OF DIFFERENT REGIONS IN A WELDED JOINT OF CREEP-RESISTANT STEEL. *Milivoje JOVANOVIĆ, Simon SEDMAK, Aleksandar SEDMAK, Zijah BURZIĆ, Ivica ČAMAGIĆ,*
3. [ICMFM_XX_05] NUMERICAL SIMULATION OF FATIGUE CRACK GROWTH THROUGH DIFFERENT WELDED JOINT REGIONS. *Simon SEDMAK, Aleksandar SEDMAK, Aleksandar GRBOVIĆ, Srđa PERKOVIĆ, Zijah BURZIĆ*
4. [ICMFM_XX_30] INVESTIGATION ON HIGH TEMPERATURE FRETTING VERY HIGH CYCLE FATIGUE STRENGTH OF SUPER-ALLOY MODIFIED BY LASER CLADDING. *Jian Wang, Zhiyong Huang, Jiebin Shen, Chuanli Yu*
5. [ICMFM_XX_31] A NEW ANTI-FATIGUE DESIGN METHOD FOR WELDED STRUCTURES BASED ON STIFFNESS COORDINATION STRATEGY. *Chunliang Niu, Suming Xie, Tao Li*
6. [ICMFM_XX_37] IDENTIFICATION OF KEY FATIGUE WELDS OF RAIL VEHICLE WELDED FRAME AND IMPROVEMENT OF ANTI-FATIGUE PERFORMANCE. *Xie Suming, Xu Zhipeng, Nie Chungu, Xue Ningxin*
7. [ICMFM_XX_97] FATIGUE BEHAVIOUR OF RETIGHTENED BOLTED JOINTS AFFECTED BY VIBRATION INDUCED LOOSENING. *Baris TANRIKULU, Ramazan KARAKUZU, Sarper DOGAN, Sezgin YURTDAS*



17:15 – 17:45	Coffee break	
17:45 – 19:25	D – Session VIII (room A)	Prof. Hryhoriy Nykyforchyn, Prof. Krzysztof Jamroziak

1. [ICMFM_XX_12] QUANTIFYING CRACK GROWTH MECHANISM UNDER FATIGUE OVERLOADS BY FULL FIELD MEASUREMENT NEAR CRACK TIP. *Chuanyong Chen, Haijun Xuan, Duyi Ye*
2. [ICMFM_XX_27] DESCRIPTION OF THE FATIGUE CRACK GROWTH RATE USING J PARAMETER FOR WELDED SPECIMENS FROM S355 STEEL UNDER BENDING LOADING TYPE. *Dariusz ROZUMEK, Janusz LEWANDOWSKI, Grzegorz LESIUK, Zbigniew MARCINIAK, José A. CORREIA, Wojciech MACEK*
3. [ICMFM_XX_33] CHARACTERISATION OF MULTIAXIAL STRAIN ROAD LOADS IN ASSESSING THE DURABILITY OF AN AUTOMOTIVE COIL SPRING. *Nazirul Muhaimin HAMZI, Salvinder Singh KARAM SINGH, Shahrum ABDULLAH, Lennie ABDULLAH, Abdul Hadi AZMAN, Mohammad Rasidi MOHAMMAD RASANI*
4. [ICMFM_XX_46] FATIGUE CRACK GROWTH UNDER MIXED-MODE I+II IN HEAT TREATED 42CRMO4 STEEL. *Monika DUDA, Michał SMOLNICKI, Grzegorz LESIUK*
5. [ICMFM_XX_50] OPTICAL MEASUREMENT TECHNIQUES FOR FATIGUE DAMAGE DEVELOPMENT MONITORING. *Mateusz KOPEĆ, Adam BRODECKI, Zbigniew L. KOWALEWSKI*



17:45 - 19:25

D - Session IX (room B)

Behzad V. FARA-
HANI Ph.D., Prof.
Grzegorz Lesiuk

1. [ICMFM_XX_63] STRESS DEAD ZONE CONCEPT BY HIGH RESOLUTION OPTICAL TECHNIQUES. Behzad V. FARA HANI, Frederico DIREITO, Pedro J. SOUSA, Francisco Q. MELO, Pedro M. G. P. MOREIRA
2. [ICMFM_XX_78] EFFECTS OF SPECIMEN THICKNESS ON FATIGUE CRACK GROWTH RESISTANCE IN PARIS REGION IN AISI 304. Stanislav SEITL, Pavel POKORNÝ, Jan KLUSÁK, Petr MIARKA, Szymon DUDA, Grzegorz LESIUK
3. ROLE OF THE STRAIN ENERGY DENSITY FACTOR IN FATIGUE CRACK GROWTH RATE DESCRIPTION Grzegorz LESIUK, Dariusz ROZUMEK, Mieczysław SZATA, Jose A.F.O. CORREIA, ABILIO M.P. DE JESUS
4. [ICMFM_XX_86] FRACTURE MECHANICS ASSESSMENT OF NOTCHES SUBJECTED TO VERY HIGH CYCLE FATIGUE LOADING. Kamila KOZÁKOVÁ, Jan KLUSÁK
5. [ICMFM_XX_96] FATIGUE FRACTURE PROPERTIES OF SPECIMENS MADE OF ALKALI-ACTIVATED ALUMINOSILICATE COMPOSITE. Stanislav SEITL, Hana ŠIMONOVÁ, Pavla ROVNANÍKOVÁ, Zbyněk KERŠNER



Day 2 - 16.09.2021		
9:00 - 9:50	Keynote 4 - prof. Luca Susmel (room A)	Prof. M. Guagliano
9:55 - 10:45	Keynote 5 - prof. M. Guagliano (room A)	Prof. Luca Susmel
10:50 - 12:30	C - Session V (room A)	Prof. Shun-Peng Zhu, Irena Gadolina Ph.D.

1. [ICMFM_XX_07] FATIGUE LIFE ASSESSMENT WITHIN THE FREQUENCY DOMAIN FOR EXPLOSIVE CLADDED JOINTS UNDER NON-GAUSSIAN RANDOM LOADING. Michał BÖHM
2. [ICMFM_XX_17] ANALYSIS OF THE STRENGTH OF A POLYMER COMPOSITE IN TERMS OF FINITE ELEMENT METHOD TAKING INTO ACCOUNT THE MARKOV THEORY. Rafał CHATYS, Dariusz PYKA, Andrey ANISKEVICH, Egidijus DRAGASIUS, Mirosław BOCIAN, Krzysztof JAMROZIAK
3. [ICMFM_XX_24] MACHINE LEARNING-BASED SURROGATE MODEL FOR PROBABILISTIC CCF DAMAGE EVALUATION OF TURBINE ROTORS. Xue-Qin Li, Lu-Kai Song, Guang-Chen Bai, Jie Wen
4. [ICMFM_XX_25] A HIGH CYCLE FATIGUE RELIABILITY APPROACH FOR AEROENGINE COMPRESSOR BLISK CONSIDERING RANDOMNESS AND FUZZINESS. Yao-Wei Wang, Lu-Kai Song, Guang-Chen Bai, Xue-Qin Li
5. [ICMFM_XX_61] COMPARISON OF DIFFERENT FATIGUE LAWS AND STATISTICAL METHODS FOR PROBABILISTIC MODELING OF MECHANICAL FATIGUE WITH CENSORED DATA. Ivan RUKAVINA, Faouzi ADJED, Charlotte CHABANAS, Samuel VAN DE HEL, Mohcine NFAOUI, Alexandre DEMENAI



10:50 - 12:30

C - Session VI (room B)

Michał Bohm
Ph.D., Prof. Denis
Benasciutti

1. [ICMFM_XX_26] PROBABILISTIC CREEP-FATIGUE LIFE PREDICTION OF TURBINE COOLING BLADES USING DC STRATEGY-BASED NON-INTRUSIVE POLYNOMIAL CHAOS EXPANSION. Rui-Chen Guo, Lu-Kai Song, Guang-Chen Bai
2. [ICMFM_XX_34] CLUSTER ANALYSIS IN THE CHOICE OF OPERATING MODES IN DURABILITY ANALYSIS OF RANDOM TIME-HISTORY RECORDS. Irina GADOLINA, Julian Marcell ENZWEILER MARQUES, Denis BENASCIUTTI
3. [ICMFM_XX_38] PROBABILISTIC FATIGUE CHARACTERIZATION OF WIND-TURBINE PITCH-BEARING MATERIAL AND VALIDATION USING PROBABILISTIC P-S-N FATIGUE MODELS WITH SCALE EFFECT. Mikel NEVE, Hodei USABIAGA, Leire LAHIDALGA, Mario Alberto ALVAREZ, Haritz ZABALA, Mireia OLAVE, Iker URRESTI, Miguel MUNIZ-CALVENTE
4. [ICMFM_XX_39] PROBABILISTIC FATIGUE LIFE PREDICTION AND RELIABILITY ASSESSMENT OF NOTCHED COMPONENTS UNDER SIZE EFFECT. Jin-Chao HE, Shun-Peng ZHU, Xiao-Peng NIU, Ding LIAO, José A.F.O. CORREIA
5. [ICMFM_XX_40] PROBABILISTIC STORAGE LIFE PREDICTION AND RELIABILITY ANALYSIS OF SOLID PROPELLANTS UNDER UNCERTAINTY. Ziling Zhang, Shun-Peng Zhu, Xiao-Peng Niu



12:30 – 13:30	Lunch	
13:30 – 14:20	Keynote 6 – prof. Daniel Kujawski (room A)	Prof. Abilio de Jesus
14:20 – 15:40	E – Session X (room A)	Prof. Stanislav Seitl, Prof. Grzegorz Lesiuk

1. [ICMFM_XX_47] **SELECTED PROBLEMS OF THE MECHANICAL DEGRADATION OF THE LONG-TERM OPERATED METALLIC BRIDGES MATERIALS AND ITS REHABILITATION USING COMPOSITE MATERIALS.** Grzegorz LESIUK, Paweł WĄTROBA, Jose A.F.O. CORREIA, Agnieszka SZUST, Mikołaj KATKOWSKI, Przemysław STRÓŻYK, Abilio M.P. De JESUS
2. [ICMFM_XX_54] **DECELERATION OF FATIGUE CRACK GROWTH RATE IN METALS USING VARIOUS TECHNIQUES – COMPARATIVE ANALYSIS.** Grzegorz LESIUK, Hryhoriy NYKYFORCHYN, José A. CORREIA, Olha ZVIRKO, Szymon DUDA, Paweł ZIELONKA, Tomasz OSIECKI, Stanislav SEITL
3. [ICMFM_XX_56] **CONTRIBUTION TO THE STUDY OF THE FATIGUE OF RIVETED JOINTS, INFLUENCE OF THE MATERIAL AND OF THE STRESS RATIO.** Stéphane SIRE, Paul Dario TOASA CAIZA, Bernard ESPION, Muriel RAGUENEAU
4. [ICMFM_XX_79] **DETERMINATION OF ILSS IN THE INVERSE FIBER METAL LAMINATES USING EXPERIMENTAL-NUMERICAL APPROACH.** Michał SMOLNICKI, Szymon DUDA, Paweł STABLA, Tomasz OSIECKI



14:20 - 15:40

E - Session XI (room B)

Prof. Jose A.F.O.
Correia, Prof.
Stephane Sire

1. [ICMFM_XX_57] GLOBAL STATISTICAL ANALYSIS OF OLD IRON AND STEEL PROPERTIES BASED ON OLD AND RECENT LITERATURE REVIEW. Stéphane SIRE
2. [ICMFM_XX_64] NUMERICAL SIMULATION AND CONSTRUCTAL DESIGN APPLIED TO PERFORATED PLATE SUBJECTED TO BIAXIAL BUCKLING. Guilherme Ribeiro BAUMGARDT, Eysler Queiroz DE SOUSA, Leonardo Willian Barbosa PINTO, Elizaldo Domingues DOS SANTOS, Thiago DA SILVEIRA, Liércio André ISOLDI
3. [ICMFM_XX_91] ADVANCED NUMERICAL MODELLING COMBINED WITH ANALYTICAL TOOLS TO IMPLEMENT LOCAL FATIGUE METHODS. Cláudio S. HORAS, Abílio M. P. de JESUS, Rui CALÇADA
4. [ICMFM_XX_95] RISK-BASED INSPECTION STRATEGIES OF MITER GATES BASED ON STRUCTURAL HEALTH MONITORING. Thuong Van DANG, Philippe RIGO



15:40 – 16:10	Coffee break	
16:10 – 17:50	F – Session XII (room A)	Prof. Gianni Nicoletto, Prof. Zbigniew Oksiuta

1. [ICMFM_XX_08] SOME OBSERVATION CONCERNING FATIGUE RESPONSE OF ADDITIVELY MANUFACTURED SPECIMENS FROM TI-6AL-4V. *Martin NESLÁDEK, Martin MATUŠŮ, Jan PAPUGA, Matěj MŽOUREK, Michaela ROUDNICKÁ*
2. [ICMFM_XX_35] INFLUENCE OF DIFFERENT SURFACE- AND HEAT TREATMENTS; ELEVATED TEMPERATURE, ORIENTATION AND MACHINES ON THE FATIGUE PROPERTIES OF TI6AL4V PROCESSED BY L-PBF FOR CONTROLLED POWDER PROPERTIES. *Benjamin MEIER, Fernando WARCHOMICKA, Reinhard KAINDL, Christoph SOMMITSCH, Wolfgang WALDHAUSER*
3. [ICMFM_XX_42] A NUMERICAL METHODOLOGY TO CALCULATE THE RESIDUAL STRESS INTENSITY FACTOR FOR A PLATE WITH CRACKS AT THE EDGES OF A CENTRAL HOLE. *Rita DANTAS, Bruno PEDROSA, José CORREIA, Abílio DE JESUS, Grzegorz LESIUK*
4. [ICMFM_XX_55] FATIGUE BEHAVIOR OF AS-BUILT L-PBF INCONEL 718 AND SURFACE ROUGHNESS-BASED MODELING. *Gianni NICOLETTO, Federico URIATI*
5. [ICMFM_XX_59] FATIGUE BEHAVIOUR OF THE TITANIUM-TANTALUM ALLOY OBTAINED BY ADDITIVE MANUFACTURING. *Teresa MORGADO, Catarina VALENTE, Josu LEUNDA, Alexandre VELHINHO, Rui SILVA*



16:10 – 17:50

G – Session XIV (room B)

Prof. Michał
Stosiak,
Prof. Sorrentino
Silvio

1. [ICMFM_XX_11] EXPERIMENTAL IDENTIFICATION OF VISCOELASTIC PROPERTIES OF PLATES MADE OF QUIET ALUMINUM. *Pasquale GROSSO, Alessandro DE FELICE, Silvio SORRENTINO*
2. [ICMFM_XX_20] THE METHOD RISING OF DAMPING OF THE AIR SPRING. *Krzysztof LEWANDOWSKI*
3. [ICMFM_XX_21] ANALYTICAL SOLUTION OF WATER HAMMER IN METAL PIPES. PART I - THEORETICAL STUDY. *Kamil URBANOWICZ, Anton BERGANT, Michał STOSIAK, Marek LUBECKI*
4. [ICMFM_XX_22] ANALYTICAL SOLUTION OF WATER HAMMER IN METAL PIPES. PART II - COMPARATIVE STUDY. *Kamil URBANOWICZ, Anton BERGANT, Michał STOSIAK, Krzysztof TOWARNICKI*
5. [ICMFM_XX_28] EXPERIMENTAL AND NUMERICAL ANALYSIS OF HYDRAULIC CYLINDER LOADS. *Marek LUBECKI, Michał STOSIAK, Michał BANAŚ, Piotr STRYCZEK, Kamil URBANOWICZ*



Day 3 - 17.09.21		
9:00 - 9:50	Keynote 7 - prof. Abílio M.P. De Jesus (room A)	Prof. Grzegorz Lesiuk
9:55 - 11:55	C - Session VII (room A)	Prof. Shun-Peng Zhu, Jan Klusak Ph.D.

1. [ICMFM_XX_23] PROBABILISTIC-S-N CURVES: LIKELIHOOD RATIO CONFIDENCE INTERVALS AND DESIGN CURVES. A. TRIDELLO, D.S. PAOLINO
2. [ICMFM_XX_44] AK2IS: AN EFFICIENT HCF RELIABILITY ANALYSIS APPROACH FOR AERO-ENGINE VSV MECHANISM. Hong Zhang, Lu-Kai Song, Guang-Chen Bai
3. [ICMFM_XX_53] A METHOD FOR DETERMINING CRITICAL DISTANCE OF TCD. Jiebin Shen, Haidong Fan, Jian Wang, Chuanli Yu, Zhiyong Huang
4. [ICMFM_XX_82] PROBABILISTIC FATIGUE LIFE PREDICTION UNDER NOTCH AND SIZE EFFECTS USING STRAIN ENERGY CONCEPT. Xue-Kang LI, Shun-Peng ZHU, Xiao-Peng NIU, Jin-Chao HE, José A.F.O. CORREIA
5. [ICMFM_XX_83] APPLICATION OF THE ENERGY FIELD INTENSITY APPROACH TO PROBABILISTIC NOTCH FATIGUE MODELING UNDER SIZE EFFECT. Ding LIAO, Shun-Peng ZHU, José CORREIA, Xiao-Peng NIU, Jin-Chao HE
6. [ICMFM_XX_99] EVALUATING CONFIDENCE INTERVAL OF FATIGUE DAMAGE FROM ONE SINGLE MEASURED NON-STATIONARY TIME-HISTORY. Julian Marcell ENZVEILER MARQUES, Denis BENASCIUTTI



9:55 - 11:55

G - Session XV (room B)

Prof. Kamil
Urbanowicz,
Prof. Grzegorz
Lesiuk

1. [ICMFM_XX_29] FRICTION RESISTANCES IN INTERNAL GEAR PUMP WITH MODIFIED SICKLE MADE OF PLASTIC. Krzysztof TOWARNICKI, Michał STOSIAK, Piotr ANTONIAK, Tadeusz LEŚNIEWSKI, Kamil URBANOWICZ, Paweł ŚLIWIŃSKI
2. [ICMFM_XX_51] FATIGUE CRACK GROWTH RESISTANCE OF HEAT-RESISTANT STEEL 15H11MF AFTER OPERATION IN BLADES OF A STEAM TURBINE. Halyna KRECHKOVSKA, Myroslava HREDIL, Oleksandra STUDENT
3. [ICMFM_XX_71] THE NUMERICAL INVESTIGATION OF FILAMENT WOUND COMPOSITE PRESSURE VESSEL WITH ASYMMETRIC DOMES. Paweł STABLA, Michał SMOLNICKI, Szymon DUDA
4. [ICMFM_XX_80] A REVIEW OF APPROACHES FOR FATIGUE LIFE ASSESSMENT IN COMPOSITE MATERIALS. Szymon DUDA, Jose A.F.O. CORREIA, Grzegorz LESIUK, Michał SMOLNICKI, Paweł STABLA
5. [ICMFM_XX_90] PRE-SELECTION OF ROAD TEST SECTIONS FOR THE ACCELERATED PROVING GROUND TESTS OF A HIGH MOBILITY WHEELED VEHICLE. Mariusz KOSOBUDZKI



09:55 - 11:15

F - Session XIII (room C)

Prof. Aleksa
Milovanovic ,
Prof. Teresa
Morgado

1. [ICMFM_XX_62] EFFECTS OF HOT ISOSTATIC PRESSING AND SANDBLASTING ON THE HIGH AND VERY HIGH CYCLE FATIGUE PERFORMANCE OF INCONEL 718 ALLOY FABRICATED BY SELECTIVE LASER MELTING. Chuanli Yu, Zhiyong Huang, Jiebin Shen, Jian Wang
2. [ICMFM_XX_67] ASSESSMENT OF INNOVATIVE PLA BIOPOLYMER COMPOSITIONS WITH PLANT WASTE FILLERS. Marek JAŁBRZYKOWSKI, Sławomir OBIDZIŃSKI, Zbigniew OKSIUTA, Urszula CZYŻEWSKA, Tomasz OSIECKI, Lothar KROLL, Magdalena JOKA
3. [ICMFM_XX_68] NOTCH DIMENSION DISCREPANCY ON SENB SPECIMENS FABRICATED FROM PLA AND ADVANCED PLA-X MATERIAL. Ivana Jevtić, Aleksa Milovanović, Isaak Trajković, Milan Travica, Aleksandar Sedmak, Aleksandar Grbović, Miloš Milošević
4. [ICMFM_XX_92] FATIGUE BEHAVIOUR OF INCONEL 625 PRODUCED BY DIRECTED ENERGY DEPOSITION. Felipe Klein Fiorentin, Duarte Maciel, Jorge Gil, Miguel Figueiredo, Ana Reis, Grzegorz Lesiuk, Abílio de Jesus



11:55 – 12:25	Lunch	
12:25 – 13:15	Keynote 8 – prof. Grzegorz Glinka (room A)	Prof. Jose A.F.O Correia
13:20 – 15:00	H – Session XVII (room A)	Prof. Mariusz Hasiak, Julian Marcell Enzweiler Marques Ph.D,

1. [ICMFM_XX_66] STRESS RATIO EFFECT ON FATIGUE CRACK GROWTH RATE BASED ON MAGNETIC FLUX LEAKAGE PARAMETERS. Azli ARIFIN, Shahrum ABDULLAH, Ahmad Kamal ARIFIN, Nordin JAMALUDIN
2. [ICMFM_XX_73] THERMOPLASTIC DEFORMATION IN SUPERCOOLED LIQUID REGION OF ZR-TI-CU-NI-BE BULK METALLIC GLASS WITH ENHANCED MECHANICAL PROPERTIES. Michał BIAŁY, Mariusz HASIAK, Amadeusz ŁASZCZ
3. [ICMFM_XX_74] INVESTIGATIONS OF MECHANICAL PROPERTIES OF SINGLE GRAINS IN MULTIFUNCTIONAL NIMNGA-BASED MAGNETIC SHAPE MEMORY ALLOYS. Amadeusz ŁASZCZ, Mariusz HASIAK, Michał BIAŁY
4. [ICMFM_XX_75] MECHANICAL PROPERTIES OF COMPLEX STRUCTURES OF MAGNETOCALORIC GDGESI-BASED MATERIALS. Mariusz HASIAK, Amadeusz ŁASZCZ, Michał BIAŁY
5. [ICMFM_XX_93] AN ANALYTICAL PREDICTION METHODOLOGY FOR HEAT GENERATION AND TRANSFER IN GIGACYCLE FATIGUE TESTING. Felipe Klein Fiorentin, Filipe Silva, Luis Reis, Hélder Puga, Abílio de Jesus



13:20 - 15:00	H - Session XVI (room B)	Rafał Mech Ph.D., Prof. Denis BENASCIUTTI,
<ol style="list-style-type: none">1. [ICMFM_XX_14] INFLUENCE OF REVERSED AUSTENITE ON LOW CYCLE FATIGUE OF A 9NI STEEL. <i>Mahira Adna COTA ARAUJO, Jean-Bernard VOGT, Jérémie BOUQUEREL</i>2. [ICMFM_XX_32] CYCLIC PLASTICITY AND LOW-CYCLE FATIGUE OF AN AISI 316L STAINLESS STEEL TESTED AT ROOM TEMPERATURE. <u>Denis BENASCIUTTI</u>, <i>Marco PELEGATTI, Alex LANZUTTI, Enrico SALVATI, Jelena SRNEC NOVAK, Francesco DE BONA,</i>3. [ICMFM_XX_36] THE EFFECT OF MINIMUM TEMPERATURE AND PHASE SHIFT ON THERMOMECHANICAL FATIGUE OF NICKEL-BASED SUPERALLOY. <i>Ivo ŠULÁK, Karel OBRTLÍK, Karel HRBÁČEK</i>4. [ICMFM_XX_60] FORMING STRESS INDUCED INITIAL DAMAGE IN CASE HARDENING STEEL 16MNCRS5 IN LOW CYCLE FATIGUE REGIME. <u>Kerstin MOEHRING</u>, <i>Frank WALTHER</i>5. [ICMFM_XX_81] INVESTIGATION ON THE INFLUENCE OF MECHANICAL RESONANCE INDUCED BY MAGNETOSTRICTION OF HARVESTER CORE. <u>Rafał MECH</u>, <i>Jerzy KALETA, Przemysław WIEWIÓRSKI, Szymon BABEJ</i>		
15:05 - 15:20	Closing ceremony (room A)	



Keynote speakers

The keynote speakers will have 40 minutes for the speech, excluding 10 minutes for questions, which total 50 min. The keynotes' presentation will be broadcasted in the Room A.

[1] *operational degradation of fatigue strength of structural steels: role of corrosive-hydrogenating environments*, HRYHORIY NYKYFORCHYN, OLHA ZVIRKO

[2] *Numerical simulation of fatigue crack growth - case studies*, ALEKSANDAR SEDMAK

[3] *Damage mechanisms in fatigue of metallic materials*, JAROSLAV POLÁK

[4] *Multiaxial fatigue assessment of notched additively manufactured stainless steel*, LUCA SUSMEL

[5] *Shot peening for improving the fatigue strength of additive manufactured parts: recent advancement and future perspectives*, M. GUAGLIANO

[6] *A Two-Parameter Function for R-ratio Effects in FCG Analyses*, DANIEL KUJAWSKI

[7] *Research on fatigue damage methodologies towards structural integrity assessment of metallic structures and components*, ABÍLIO M.P. DE JESUS

[8] *Crack Tip Stress-Strain Affairs and Fatigue Crack Growth*, GRZEGORZ GLINKA

Participants

The conference will be divided into two and three rooms as follows: Rooms A, B, and C. Each speaker is kindly requested to keep the assumed speech duration up to 15 min. In addition, 5 minutes is reserved for questions after each presentation.



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