



Programme

04.06.2018

- 11.00 – 12.30 Registration
14.00 – 16.00 Session 1: Chairman Andrea Spagnoli
16.00 – 16.30 **COFFEE BREAK**
16.30 – 18.00 Session 2: Chairman Giacomo Risitano
18.00 – 19.30 Frattura ed Integrità Strutturale: Editorial Board Meeting

05.06.2018

- 08.15 – 08.45 Registration
08.45 – 09.00 Conference Opening
09.00 – 10.30 Session 3: Chairman Francesco Iacoviello
10.30 – 11.00 **COFFEE BREAK**
11.00 – 12.30 Session 4: Chairman Vittorio Di Cocco
12.30 – 14.00 **LUNCH (“SIR JASPER’S” RESTAURANT)**
14.00 – 16.00 Session 5: Chairman Carmine Maletta
16.00 – 16.30 **COFFEE BREAK**
16.30 – 17.45 Session 6: Chairman Giuseppe Andrea Ferro
17.45 – 19.30 **IGF MEMBERS MEETING**
20.00 **CONFERENCE DINNER (“VILLA LA MERIDIANA” RESTAURANT)**

06.06.2018

- 09.00 – 11.00 Session 7: Chairman Giacomo Risitano
11.00 – 11.30 **COFFEE BREAK**
11.30 – 13.00 Session 8: Chairman Francesco Iacoviello
13.00 – 13.15 **CONFERENCE CLOSURE**

POSTER SESSION AND VIRTUAL PRESENTATIONS



04.06.2018 **SESSION 1: CHAIRMAN ANDREA SPAGNOLI**

14.00 – 14.30 Invited Lecture	G. Bolzon <i>Non-destructive diagnostic analysis of pipelines</i>
14.30 – 14.45 Paper 017	R. Fincato, S. Tsutsumi <i>Evaluation of the ductile fracture of Q460 steel under two different failure criteria</i>
14.45 – 15.00	S. K. Kourkoulis, I. Dakanali, I. Stavrakas, D. Triantis <i>An alternative configuration for the elimination of parasitic effects during pull-out tests</i>
15.00 – 15.15	G. Mariggiò, S. Dalle Vacche, R. Bongiovanni, M. Corrado <i>Experimental assessment of the effectiveness of hydrophobic UV-cured coatings in protecting glass surfaces against stress corrosion</i>
15.15 – 15.30 Paper 033	E. Grande, M. Imbimbo, S. Marfia, Elio Sacco <i>Numerical simulation of the de-bonding phenomenon of FRCC strengthening systems</i>
15.30 – 15.45 Paper 037	P. Magarò, A.L. Marino, C. Maletta, M. Tului, A. Di Schino <i>Tribological properties of wear-resistant coatings obtained by cold gas dynamic spray</i>
15.45 – 16.00 Paper 040	Jesús Toribio <i>Notch-induced anisotropic fracture of cold drawn pearlitic steels and the associated crack path deflection and mixed-mode stress state: A Tribute to Masaccio</i>



04.06.2018

SESSION 2: CHAIRMAN *GIACOMO RISITANO*

16.30 – 16.45 Paper 023	C. Bellini, W. Polini, L. Sorrentino, S. Turchetta <i>Mechanical performances increase of natural stones by GFRP sandwich structures</i>
16.45 – 17.00 Paper 035	N. Bonora, G. Curiale, S. De Muro, G. Iannitti, S. Marfia, A. Ruggiero, E. Sacco, S. Scafati, G. Testa <i>Analysis of reinforced concrete slabs under blast loading</i>
17.00 – 17.15 Paper 019	D. Rigon, M. Ricotta, G. Meneghetti <i>Evaluating the specific heat loss in severely notched stainless steel specimens for fatigue strength analyses</i>
17.15 – 17.30 Paper 032	G. Gabetta, P. Cioffi, R. Bruschi <i>Engineering thoughts on Hydrogen Embrittlement</i>
17.30 – 17.45 Paper 007	M. Jameel Zedan, Q. M. Doos <i>New Method of Resistance Spot Welding for Dissimilar 1008 Low Carbon Steel-5052 Aluminum Alloy</i>
17.45 – 18.00 Paper 036	I. Čamagić, S. Sedmak, A. Sedmak, Z. Burzić, M. Marsenić <i>The impact of temperature and exploitation time on tensile properties and plain strain fracture toughness, K_{Ic} in a welded joint</i>



05.06.2018 **SESSION 3: CHAIRMAN *FRANCESCO IACOVIELLO***

09.00 – 10.00 Invited Lecture	G. Krauss <i>Intergranular Fracture and Microstructure: Embrittlements in Quench and Tempered Low-Alloy Carbon Steels</i>
10.00 – 10.15 Paper 010	P. Ferro, F. Berto, F. Bonollo, R. Montanari <i>Experimental and numerical analysis of TIG-dressing applied to a steel T-joint</i>
10.15 – 10.30	S. Vantadori, A. Carpinteri, G. Fortese, C. Ronchei, D. Scorza, A. Zanichelli <i>Influence of power spectral density shape on fatigue damage</i>



05.06.2018 **SESSIONE 4: CHAIRMAN VITTORIO DI COCCO**

11.00 – 11.30 Invited Lecture	D. Firrao, L. Marmo, P. Matteis <i>Pressure bottles that explode after many years of service is there a common cause?</i>
11.30 – 11.45 Paper 021	F. Berto, L. Sandnes, Ø. Grong, P. Ferro <i>Mechanical Qualification of the Hybrid Metal Extrusion & Bonding (HYB) Process for Butt Welding of 4 mm Plates of AA6082-T6</i>
11.45 – 12.00 Paper 008	L. Marsavina, O. Pop, E. Linul <i>Mixed mode fracture toughness of particleboard</i>
12.00 – 12.15 Paper 005	P. Leroux, D. Li, D. Morrone <i>Performance characterization of an innovative dual-load controlled tribometer</i>
12.15 – 12.30 Paper 015	Ch.F. Markides, E.D. Pasiou, S.K. Kourkoulis <i>A preliminary study on the potentialities of the semi-circular ring test</i>



05.06.2018 **SESSIONE 5: CHAIRMAN CARMINE MALETTA**

14.00 – 14.15	E. Guglielmino, G. Risitano, D. Santonocito <i>Non-destructive diagnostic analysis of pipelines</i>
14.15 – 14.30 Paper 011	T. Rahman, Q. M. Doos, A.M. AL-Mukhtar <i>Failure Mechanisms and Modeling of Spot Welded Joints in Low Carbon Mild Sheets Steel and High Strength Low Alloy Steel</i>
14.30 – 14.45	A. Sapora, A.R. Torabi, P. Cornetti <i>Circular holes under remote tensile load: From experiments to FFM theory</i>
14.45 – 15.00 Paper 006	O. H. Ezeh, L. Susmel <i>On the fatigue strength of 3D-printed polylactide (PLA)</i>
15.00 – 15.15 Paper 009	L. Romanin, P. Ferro, F. Berto <i>The influence of metallurgical data on residual stresses in Computational Welding</i>
15.15 – 15.30 Paper 004	Yu. Matvienko, S. Eleonsky, V. Pisarev <i>Evolution of fracture mechanics parameters for cracks in residual stress fields</i>
15.30 – 15.45 Paper 018	R. Fincato, S. Tsutsumi, H. Momii <i>Ductile damage evolution under cyclic non-proportional loading paths</i>
15.45 – 16.00 Paper 020	A. Spagnoli, A. Carpinteri, M. Terzano <i>Mode II fracture toughness for non-planar frictional cracks</i>



05.06.2018 SESSIONE 6: CHAIRMAN *GIUSEPPE ANDREA FERRO*

16.30 – 16.45	N. Vaysfeld <i>Diffraction of waves on a conical defect located in acoustic media</i>
16.45 – 17.00	F. Furgiuele, P. Magarò, C. Maletta, D. Renzo, E. Sgambitterra <i>Fatigue crack propagation in NiTi based shape memory alloys: effect of the operating temperature</i>
17.00 – 17.15 Paper 013	M. F. Funari, F. Greco, P. Lonetti <i>A coupled ALE-Cohesive formulation for interfacial debonding propagation in sandwich panels</i>
17.15 – 17.30 Paper 041	Jesús Toribio <i>Microstructure-based anisotropic fatigue behavior of hot rolled and cold drawn pearlitic steel wires and the corresponding crack paths: Following the wake of Antonio Machado and Fray Luis de León</i>
17.30 – 17.45 Paper 014	C. Bellini, G. Parodo, W. Polini, L. Sorrentino <i>Experimental investigation of hydrothermal ageing on CFRP single lap joints</i>


06.06.2018 **SESSIONE 7: CHAIRMAN *GIACOMO RISITANO***

09.00 – 09.30 Invited Lecture	N. Bonora <i>Damage Mechanics 1958-2018: 60 years of continuous development.</i>
09.30 – 09.45	D. Corallo, E. Guglielmino, G. Risitano, L. Scappaticci <i>On Vibration Modes of SFRP Materials</i>
09.45 – 10.00 Paper 022	C. Bellini, L. Sorrentino <i>Mould Design for Manufacturing of Isogrid Structures in Composite Material</i>
10.00 – 10.15 Paper 034	V. Di Cocco, F. Iacoviello, F. Carlino, S. Natali <i>Bending damages in galvanized ductile cast irons</i>
10.15 – 10.30 Paper 038	F. Felli, A. Brotzu, D. Pilone, A. Paolozzi, I. Ciufolini <i>Fracture behaviour of alloys for a laser ranged satellite</i>
10.30– 10.45	G. Testa, N. Bonora, A. Ruggiero, D. Gentile, G. Iannitti <i>Application of continuum damage mechanics for Fracture Forming Limit Curve prediction</i>
10.45 – 11.00 Paper 012	F. Moroni, A. Pirondi, C. Pernechele, A. Gaita, L. Vescovi <i>Comparative investigation of mode I and II fracture toughness of directly cured CFRP and co-cured bonded CFRP joints</i>



06.06.2018 **SESSIONE 8: CHAIRMAN *FRANCESCO IACOVIELLO***

11.30 – 11.45 Paper 039	A. Reggio, L. Restuccia, G. Ferro <i>Feasibility and effectiveness of exoskeleton structures for seismic protection</i>
11.45 – 12.00	C. Garion, C. Maletta, F. Niccoli, P. Chiggiato <i>Shape memory alloy couplers for ultra-high vacuum applications in particle accelerators</i>
12.00 – 12.15 Paper 042	Jesús Toribio <i>Microstructure-based anisotropic fracture behavior of progressively cold drawn pearlitic steels and the subsequent crack path deflection: A Picassian Approach</i>
12.15 – 12.30 Paper 016	A. Khalid, R. A. Khushnood, A. Mahmood, G. A. Ferro, S. Ahmad <i>Synthesis, characterization and applications of nanomicro carbonaceous inerts. A review</i>
12.30 – 12.45	A. Apuzzo, R. Barretta, R. Luciano <i>Free vibrations of Bernoulli-Euler nano-beams by the stress-driven nonlocal integral model</i>
12.45 – 13.00 Paper 003	F. Iacoviello, V. Di Cocco, G. Favaro <i>Pearlitic Ductile Cast Iron: mechanical properties gradient analysis in graphite elements</i>



POSTER SESSION

Paper 024	B. Saadouki, T. Sapanathan, P. Pelca, M. Elghorba, M Rachik <i>Failure analysis and damage modeling of precipitate strengthened Cu–Ni–Si alloy under fatigue loading</i>
Paper 030	A. Saoud, A. Elamri, Kh. Kimakh, M. Chergui, M. Ziani, M. Elmatar <i>A new test for the characterization of mode II fracture of two species of wood: Thuja and Eucalyptus Grandis</i>
Paper 031	K. Kimakh, A. Chouaf, S. Aghzer, A. Saoud, E. Malil, M. Chergui <i>Improvement of fatigue life of AISI 1045 carbon steel of parts obtained by turning process through feed rate</i>

VIRTUAL PRESENTATIONS

Paper 028	M. Ezzahi, M. Khafallah, F. Majid <i>Structural integrity of a Doubly Fed Induction Generator (DFIG) of a wind power system (WPS)</i>
Paper 029	F. Majid, M. Ezzahi, M. Elghorba <i>Energy damage approaches of artificially notched and aged thermoplastic pipes</i>



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