

# IGF Video recordings

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## 1st Mediterranean Conference on Fracture and Structural Integrity, MedFract1



# 1st Mediterranean Conference on Fracture and Structural Integrity, MedFract2

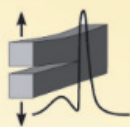
February 26-28, 2020, Athens, Greece



**Athens, Greece**

The Greek Society of Experimental Mechanics of Materials (GSEMM) & the Italian Group on Fracture (IGF) organise the

1<sup>st</sup> Mediterranean Conference on Fracture and Structural Integrity, MedFract1  
February 26-28, 2020



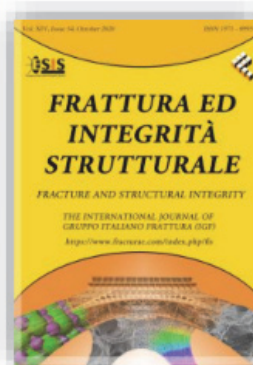
**GSEMM**  
GREEK SOCIETY OF EXPERIMENTAL MECHANICS OF MATERIALS



[www.medfract1.eu](http://www.medfract1.eu)

## Special issues

Authors of selected conference papers will be invited to submit extended versions for publication in peer reviewed special issues of *Frattura ed Integrità Strutturale* and *Material Design & Processing Communications* (Wiley). Both journals are Scopus and WoS indexed.



## Chairmen

- Filippo Berto (Norwegian University of Science and Technology, NTNU, Norway)
- Karalekas Dimitrios (University of Piraeus, Greece)
- Triantis Dimos (University of West Attica, Greece)
- Giuseppe Ferro (Politecnico di Torino, Italy)
- Francesco Iacoviello (Università di Cassino e del Lazio Meridionale, Italy)
- Kourkoulis Stavros (National Technical University of Athens, NTUA, Greece)

## VIDEO-PRESENTATIONS

Presentation title	Authors	DOI
Duplex stainless steels fatigue crack propagation resistance	F. Iacoviello	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.1">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.1</a>
A refined of trigonometric shear deformation plate theory based on neutral surface position is proposed for static analysis of fgm	M. Merazi	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.2">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.2</a>
Lifetime estimation of 316 stainless steel specimens by using a critical plane approach	S. Vantadori, A. Carpinteri, C. Ronchel, D. Scorza, A. Zanichelli, S. Saito, Y. Okamoto, T. Itoh	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.3">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.3</a>
Nano CaCO <sub>3</sub> particles in cement mortars towards developing a circular economy in the cement industry	I. Cosentino, F. Liendo, L. Restuccia, M. Arduino, S. Bensaid, F. Deorsola, G. A. Ferro	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.4">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.4</a>
The exoskeleton technology as a solution to seismic adjustnebt of existing buildings	L. Martelli, L. Restuccia, G. A. Ferro	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.5">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.5</a>
The use of Biochar to reduce the carbon footprint of cement-based materials	D. Suarez-Reira, L. Restuccia, G. A. Ferro	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.6">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.6</a>
Post welding heat treatment improving mechanical properties on Ti-6Al-4V	P. Ferro, F. Berto, F. Bonolio L. Romanin, G. Salemi	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.7">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.7</a>
Influence of photopolymerization process parameters on rhe mechanical properties of AM materials	R. Brighenti, M. P. Cosma, A. Spagnoli, M. Terzano	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.8">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.8</a>
How to apply mitigating actions against critical raw materials issues in mechanical design	P. Ferro, F. Bonollo	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.9">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.9</a>
3D effects on Fracture Mechanics corner point singularities	M. Maurizi, F. Berto	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.10">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.10</a>
A review on flexible graphite summary of the main	E. Solfiti, F. Berto	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.11">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.11</a>

Presentation title	Authors	DOI
thermophysical properties and comparison		
Comparison between long and short beam flexure of carbon fibre based FML	C. Bellini, V. Di Cocco, F. Iacoviello, L. Sorrentino	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.12">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.12</a>
An analytic solution for the stress and displacement fields in centrally notched beams under four point bending	Ch. F. Markides, E. D. Pasion, S. K. Kourkoulis	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.13">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.13</a>
Energetic approach for the fatigue assessment of PE100	G. Risitano, E. Guglielmino, D. Santonocito	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.14">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.14</a>
A new simple method for shell vibration analysis with initial stress accounting	Y. Dubyk, O. Ishchenko	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.15">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.15</a>
Computational analysis of pentamodes metamaterials for antiseismic design	P. N. Lympelopoulou, E. E. Theotokoglou	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.16">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.16</a>
A computational study of the effect of two printing parameters in fdm fabricated specimens	N. Chafzidai, Ch. Kousiafza	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.17">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.17</a>
Application of the Guggenheim, Anderson, de Boer GAB equation to sealing treatments on pine wood	C. Bertolin, L. de Ferri, M. Strojceki	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.18">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.18</a>
Effect of manufacturing parameters on tensile properties of FDM printed specimens	C. Valean, L. Marsavina, M. Marghitas, E. Linul, F. Berto, J. Razavi	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.19">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.19</a>
3D puzzle inspired metamaterial with dual Poisson's ratio	C. Gao, J. Kiendl, F. Berto, S. Mohammad, J. Razavi	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.20">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.20</a>
Bending behavior of AM50 magnesium alloy under static and dynamic loading	S-V. galatanu, M. Scano, D. Pietras, L.-D. Pirvulescu, M. C. Porcu, L. Marsavina, T. Sadowski	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.21">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.21</a>
Effects of even pores distribution on vibrational behavior of functionally graded platenporous	S. Merdaci, A. Hadj Mostefa, M. Merazi, H. Belghoul, h.	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.22">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.22</a>

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rectangular and square-Merdaci	Hellal, S. Boutaleb	
Fatigue & fracture crack paths generated by manufacturing induced microstructural & strength	J. Toribio	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.23">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.23</a>
Low cycle fatigue life assessment of a gas turbine housing	Z. Bozic, S. braut, H. Wolf, A. Sedmak	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.24">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.24</a>
Luminescence Efficiency of CaF <sub>2</sub> Eu Single Crystals Temperature Dependence	G. Saatsakis, K. Ninos, I. Valais, N. Martini, N. Kalyvas, C. Kantsos, A. Bakas, I. Kandarakis, G. Panayiotakis, C. Michail	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.25">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.25</a>
Experimental investigation and statistical modelling for assessing the tensile properties of FDM fabricated parts	N. A. FOuntas, P. Kostazos, H. Pavlidis, V. Antoniou	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.26">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.26</a>
Experimental and numerical investigation of the size effect on the mechanical properties of the banded alfas porous stone	P. Nomikos, K. Kaklis, Z. Agioutantis, S. Mavrigiannakis	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.27">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.27</a>
Modeling of Interaction Nanoparticles with Cracks on the Surface of Solids	A. Vakhrushev	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.28">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.28</a>
Experimental investigation and statistical modelling for assessing the tensile properties of FDM fabricated parts	N. A. Fountas, P. Kostazos, J. D. Kechagias, V. Antoniou, D. E. Manolakos, N. M. Vaxevanidis	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.29">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.29</a>
Examination of a ternary cement based restoration mortar	N. D. Alexopoulos, A. Dimou, Z. S. Metaxa, S. K. Kourkoulis, I. Karatasios	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.30">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.30</a>
Fatigue crack growth in operated gas pipeline steels	M. Hredil, H. Krechkovska, O. Tsyruynyk, O. Student	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.31">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.31</a>

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Non destructive evaluation of operated pipeline steels state taking into account their degradation stage	O. Zvirko, O. tsyrulnyk, H. Nykyforchyn	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.32">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.32</a>
Fatigue life assessment of the structure with widespread damage exposed to high temperature	A. Grbovic, Z. Bozic, S. Kirin, G. Kastratovic, A. Sedmak, N. Vidanovic	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.33">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.33</a>
Integrity assessment of Everse Engineered Ti6Al4V total hip replacement implant	T. Mijatovic, A. Milavanovic, A. Sedmak, L. Milovic	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.34">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.34</a>
Numerical Simulations of the Hybrid Metal Extrusion & Bonding HYB Process	F. Leoni	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.35">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.35</a>
Ultrasonic fatigue tests on the Inconel alloy 718	G. M. Dominiguez Almaraz, M. Guzman Tapia, A. Dominiguez,	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.36">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.36</a>
The relaxation processes of Pressure Stimulated Currents under the concept of Nonextensive statistical physics	A. Loukidis, I. Stavrakas, D. Triantis	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.37">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.37</a>
Study of hydraulic lime pastes for Cultural Heritage applications	A. E. Dimou, N. D. Alexopoulos, Z. S. Metaxa, S. K. Kourkoulis, I. Karatasios	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.38">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.38</a>
Preliminary results concerning the acoustic and electric activity during CSR tests	E. D. Pasiou, ch. F. Markides, I. Stavrakas, A. Loukidis, I. Cristakis, D. Triantis, S. K. Kourkoulis	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.39">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.39</a>
Investigation of certain mechanical and magnetic properties of a stressed low carbon steel after corrosion in NaCl – water solution	V. N. Kytopoulos, A. Altzoumailis, Chr. Panagopoulos, Chr. Riga	<a href="https://doi.org/10.53255/IGFTUBE.MEDFRACT1.40">https://doi.org/10.53255/IGFTUBE.MEDFRACT1.40</a>

