Jean FranÃ§ois Witz

List of Publications by Year
in descending order

44 papers	613 citations	686830 13 h-index	642321 23 g-index
49 all docs	49 docs citations	49 times ranked	555 citing authors

#	Article	IF	Citations
1	In situ 3D characterization of high temperature fatigue damage mechanisms in a cast aluminum alloy using synchrotron X-ray tomography. Scripta Materialia, 2016, 113, 254-258.	2.6	68
2	Influence of pores on crack initiation in monotonic tensile and cyclic loadings in lost foam casting A319 alloy by using 3D in-situ analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 673, 362-372.	2.6	63
3	Three-dimensional analysis of a compression test on stone wool. Acta Materialia, 2009, 57, 3310-3320.	3.8	45
4	Damage Investigation in A319 Aluminium Alloy by X‐ray Tomography and Digital Volume Correlation during <i>In Situ</i> High‐Temperature Fatigue Tests. Strain, 2016, 52, 324-335.	1.4	38
5	Influence of Fe content on the damage mechanism in A319 aluminum alloy: Tensile tests and digital image correlation. Engineering Fracture Mechanics, 2017, 183, 94-108.	2.0	36
6	Interacting force estimation during blade/seal rubs. Tribology International, 2015, 82, 504-513.	3.0	33
7	Influence of Geometry and Mechanical Properties on the Accuracy of Patient-Specific Simulation of Women Pelvic Floor. Annals of Biomedical Engineering, 2016, 44, 202-212.	1.3	27
8	Simulation of normal pelvic mobilities in building an MRI-validated biomechanical model. International Urogynecology Journal, 2013, 24, 105-112.	0.7	25
9	Characterization of the anisotropic mechanical behavior of human abdominal wall connective tissues. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 45-50.	1.5	25
10	Infrared thermography coupled with digital image correlation in studying plastic deformation on the mesoscale level. Optics and Lasers in Engineering, 2016, 86, 264-274.	2.0	22
11	Modeling of anisotropic hyperelastic heterogeneous knitted fabric reinforced composites. Journal of the Mechanics and Physics of Solids, 2019, 127, 47-61.	2.3	19
12	In-situ 3D characterization of tensile damage mechanisms in A319 aluminium alloy using X-ray tomography and digital volume correlation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139920.	2.6	19
13	Mechanisms of incursion accommodation during interaction between a vibrating blade and an abradable coating. Wear, 2015, 330-331, 406-418.	1.5	17
14	Numerical investigation of fatigue strength of grain size gradient materials under heterogeneous stress states in a notched specimen. International Journal of Fatigue, 2016, 87, 132-142.	2.8	13
15	An anisotropic micro-ellipsoid constitutive model based on a microstructural description of fibrous soft tissues. Journal of the Mechanics and Physics of Solids, 2019, 131, 56-73.	2.3	12
16	A study of IRFPA camera measurement errors: radiometric artefacts. Quantitative InfraRed Thermography Journal, 2011, 8, 3-20.	2.1	10
17	Damage investigation in A319 aluminum alloy by digital image correlation during in-situ tensile tests. Procedia Structural Integrity, 2016, 2, 3415-3422.	0.3	10
18	Wavelet Analysis of Experimental Blade Vibrations During Interaction With an Abradable Coating. Journal of Tribology, 2014, 136, .	1.0	9

#	Article	IF	Citations
19	Application of Synchrotron Radiationâ€"Computed Tomography In-Situ Observations and Digital Volume Correlation to Study Low-Cycle Fatigue Damage Micromechanisms in Lost Foam Casting A319 Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3843-3857.	1.1	9
20	Threeâ€dimensional physicsâ€based registration of pelvic system using 2D dynamic magnetic resonance imaging slices. Strain, 2020, 56, e12339.	1.4	9
21	An improved lagrangian thermography procedure for the quantification of the temperature fields within polycrystals. Quantitative InfraRed Thermography Journal, 2013, 10, 74-95.	2.1	8
22	A Dedicated DIC Methodology for Characterizing Plastic Deformation in Single Crystals. Experimental Mechanics, 2016, 56, 1155-1167.	1.1	8
23	Dynamic magnetic resonance imaging to quantify pelvic organ mobility after treatment for uterine descent: differences between surgical procedures. International Urogynecology Journal, 2020, 31, 2119-2127.	0.7	8
24	Quantitative infrared thermography applied to subgrain scale and the effect of out-of-plane deformation. Infrared Physics and Technology, 2015, 71, 432-438.	1.3	7
25	Virtual image correlation of magnetic resonance images for 3D geometric modelling of pelvic organs. Strain, 2019, 55, e12305.	1.4	7
26	Influence of the Casting Process in High Temperature Fatigue of A319 Aluminium Alloy Investigated By In-Situ X- Ray Tomography and Digital Volume Correlation. Procedia Structural Integrity, 2016, 2, 3057-3064.	0.3	6
27	Experimental investigation of elastomer mode I fracture: an attempt to estimate the critical strain energy release rate using SENT tests. International Journal of Fracture, 2018, 209, 163-170.	1.1	6
28	Towards a Better Understanding of Pelvic System Disorders Using Numerical Simulation. Lecture Notes in Computer Science, 2013, 16, 307-314.	1.0	6
29	Mechanical Properties of Crimped Mineral Wools: Identification From Digital Image Correlation. Journal of Engineering Materials and Technology, Transactions of the ASME, 2008, 130, .	0.8	5
30	Simulation of pelvic mobility: topology optimisation of ligamentous system. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 161-162.	0.9	5
31	Improvement of thermomechanical full-field analysis of metallic polycrystals using crystallographic data. Mechanics and Industry, 2012, 13, 395-403.	0.5	5
32	Experimental Characterization and Simulation of Layer Interaction in Facial Soft Tissues. Lecture Notes in Computer Science, 2014, , 233-241.	1.0	5
33	GPUCorrel: A GPU accelerated Digital Image Correlation software written in Python. SoftwareX, 2021, 16, 100815.	1.2	5
34	Evaluation of Strains on Levator Ani Muscle: Damage Induced During Delivery for a Prediction of Patient Risks. , 2017, , 135-146.		5
35	Monitoring of Transient Phenomena in Sliding Contact Application to Friction Brakes. Tribology Letters, 2013, 51, 235-242.	1.2	4
36	Simulation of the mobility of the pelvic system: influence of fascia between organs. Computer Methods in Biomechanics and Biomedical Engineering, 2022, 25, 1073-1087.	0.9	4

#	Article	IF	Citations
37	CRAPPY: Command and Real-Time Acquisition in Parallelized Python, a Python module for experimental setups. SoftwareX, 2021, 16, 100848.	1.2	3
38	CristalX: Facilitating simulations for experimentally obtained grain-based microstructures. SoftwareX, 2021, 14, 100669.	1.2	1
39	Patient-Specific Modeling of Pelvic System from MRI for Numerical Simulation: Validation Using a Physical Model. , 2020, , 19-30.		1
40	Influence of the Casting Microstructure upon the Tensile Behaviour in A319 Al-Si Alloy Investigated by X-Ray Tomography and Digital Volume Correlation. , 2014, , 73-78.		1
41	Model of cancellous bone adaptation considering hypermineralised bone tissue. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 353-354.	0.9	0
42	On the influence of microstructural gradients in the fatigue lifetime estimation of a railway axle. MATEC Web of Conferences, 2013, 7, 01007.	0.1	0
43	Modeling of Pyramidal Lattice Structures Compared to Tomographic Analysis. Advanced Structured Materials, 2020, , 305-322.	0.3	0
44	Kelvin decomposition for nonlinear hyperelastic modeling in large deformation. Mathematics and Mechanics of Complex Systems, 2021, 9, 337-365.	0.5	0