JosÃ¨ LuÃ¬s Alves

List of Publications by Year
in descending order

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111 papers	1,558 citations	331538 21 h-index	360920 35 g-index
113 all docs	113 docs citations	113 times ranked	1089 citing authors

#	Article	IF	Citations
1	Investigating the plastic anisotropy and hardening behavior of a commercial Znâ€“Cuâ€“Ti alloy: Experimental & modeling approach. Mechanics of Materials, 2022, 164, 104103.	1.7	5
2	Evaluating the influence of the deformation of the forming tools in the thickness distribution along the wall of a cylindrical cup. IOP Conference Series: Materials Science and Engineering, 2022, 1238, 012079.	0.3	0
3	Numerical implementation of an osmo-poro-visco-hyperelastic finite element solver: application to the intervertebral disc. Computer Methods in Biomechanics and Biomedical Engineering, 2021, 24, 538-550.	0.9	13
4	Study on the influence of the strain rate sensitivity on the springback of the AA5086 alloy under warm forming conditions. IOP Conference Series: Materials Science and Engineering, 2021, 1157, 012043.	0.3	0
5	Influence of the orthotropic behaviour on defects prediction in cup drawing, reverse redrawing and expansion. IOP Conference Series: Materials Science and Engineering, 2021, 1157, 012072.	0.3	0
6	Heat generation when forming AHSS: experimental and numerical analysis of tensile and draw-bead tests. IOP Conference Series: Materials Science and Engineering, 2020, 967, 012086.	0.3	0
7	Constitutive parameter identification of CB2001 yield function and its experimental verification using tube hydroforming tests. International Journal of Mechanical Sciences, 2020, 185, 105868.	3.6	11
8	Experimental and numerical analysis of the heat generated by plastic deformation in quasi-static uniaxial tensile tests. Mechanics of Materials, 2020, 146, 103398.	1.7	14
9	On the Computational Biomechanics of the Intervertebral Disc. Lecture Notes in Computational Vision and Biomechanics, 2020, , 223-240.	0.5	0
10	On the impact of modelling tension-compression asymmetry on earing and thickness predictions. Advances in Materials and Processing Technologies, 2019, 5, 445-460.	0.8	0
11	The role of viscoelasticity in the mechanical modelling of rubbers. AIP Conference Proceedings, 2019, , .	0.3	0
12	Numerical Study on the Formability of Metallic Bipolar Plates for Proton Exchange Membrane (PEM) Fuel Cells. Metals, 2019, 9, 810.	1.0	20
13	Influence of the characteristics of the 3D FE mesh on the evolution of variables used to characterize the stress state. AIP Conference Proceedings, 2019, , .	0.3	1
14	Thermomechanical analysis of the draw bead test. Advances in Materials and Processing Technologies, 2019, 5, 401-417.	0.8	2
15	Numerical study of springback using the split-ring test: influence of the clearance between the die and the punch. International Journal of Material Forming, 2018, 11, 325-337.	0.9	7
16	Thermo-mechanical finite element analysis of the AA5086 alloy under warm forming conditions. International Journal of Solids and Structures, 2018, 151, 99-117.	1.3	14
17	Study on the effect of tension-compression asymmetry on the cylindrical cup forming of an AA2090-T3 alloy. International Journal of Solids and Structures, 2018, 151, 135-144.	1.3	9
18	Incremental volumetric and Dual Kriging remapping methods. Finite Elements in Analysis and Design, 2018, 139, 35-48.	1.7	1

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19	Temperature analysis during the drawing of an aluminum cylindrical cup. Journal of Physics: Conference Series, 2018, 1063, 012137.	0.3	1
20	Study on the influence of orthotropy and tensionâ€“compression asymmetry of metal sheets in springback and formability predictions. Journal of Physics: Conference Series, 2018, 1063, 012053.	0.3	2
21	Numerical and experimental analysis of wrinkling during the cup drawing of an AA5042 aluminium alloy. International Journal of Material Forming, 2017, 10, 125-138.	0.9	22
22	Influence of boundary conditions on the prediction of springback and wrinkling in sheet metal forming. International Journal of Mechanical Sciences, 2017, 122, 244-254.	3.6	35
23	A new staggered algorithm for thermomechanical coupled problems. International Journal of Solids and Structures, 2017, 122-123, 42-58.	1.3	28
24	Finite element analysis of stent expansion: Influence of stent geometry on performance parameters. , 2017, , .		6
25	A 3D finite element model to predict the arcade-like collagen structure in a layered PCL scaffold for cartilage tissue engineering. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, S47-S48.	0.9	4
26	The role of tension-compression asymmetry of the plastic flow on ductility and damage accumulation of porous polycrystals. CiÃªncia & Tecnologia Dos Materiais, 2017, 29, e234-e238.	0.5	3
27	The Role of Evolutive Elastic Properties in the Performance of a Sheet Formed Spring Applied in Multimedia Car Industry. MATEC Web of Conferences, 2016, 80, 15009.	0.1	0
28	Automatic correction of the time step in implicit simulations of thermomechanical problems. MATEC Web of Conferences, 2016, 80, 07002.	0.1	0
29	A staggered coupling strategy for the finite element analysis of warm deep drawing process. Journal of Physics: Conference Series, 2016, 734, 032033.	0.3	1
30	DD3MAT - a code for yield criteria anisotropy parameters identification.. Journal of Physics: Conference Series, 2016, 734, 032053.	0.3	6
31	Hybrix: Experimental characterization of a micro-sandwich sheet. Journal of Materials Processing Technology, 2016, 234, 84-94.	3.1	5
32	Semi-implicit finite strain constitutive integration and mixed strain/stress control based on intermediate configurations. Engineering Structures, 2016, 124, 344-360.	2.6	5
33	Numerical analysis on the elastic deformation of the tools in sheet metal forming processes. International Journal of Solids and Structures, 2016, 100-101, 270-285.	1.3	19
34	Prediction of wrinkling and springback in sheet metal forming. MATEC Web of Conferences, 2016, 80, 03005.	0.1	3
35	The Role of Evolutive Elastic Properties in the Performance of a Sheet Formed Spring Applied in Multimedia Car Industry. Journal of Physics: Conference Series, 2016, 734, 032093.	0.3	0
36	Remapping algorithms: application to trimming operations in sheet metal forming. Journal of Physics: Conference Series, 2016, 734, 032046.	0.3	1

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37	Modeling of tensionâ€“compression asymmetry and orthotropy on metallic materials: Numerical implementation and validation. International Journal of Mechanical Sciences, 2016, 114, 217-232.	3.6	30
38	Unusual plastic deformation and damage features in titanium: Experimental tests and constitutive modeling. Journal of the Mechanics and Physics of Solids, 2016, 88, 100-122.	2.3	27
39	Low pressure sand casting of ultrasonically degassed AlSi7Mg0.3 alloy: Modelling and experimental validation of mould filling. Materials and Design, 2016, 94, 384-391.	3.3	24
40	Numerical modeling of the thermal contact in metal forming processes. International Journal of Advanced Manufacturing Technology, 2016, 87, 1797-1811.	1.5	12
41	A contact smoothing method for arbitrary surface meshes using Nagata patches. Computer Methods in Applied Mechanics and Engineering, 2016, 299, 283-315.	3.4	17
42	Numerical analysis of different heating systems for warm sheet metal forming. International Journal of Advanced Manufacturing Technology, 2016, 83, 897-909.	1.5	24
43	Evaluation of strain and stress states in the single point incremental forming process. International Journal of Advanced Manufacturing Technology, 2016, 85, 521-534.	1.5	29
44	A New Level-Set-Based Protocol for Accurate Bone Segmentation From CT Imaging. IEEE Access, 2015, 3, 1894-1906.	2.6	69
45	The feasibility of a custom-made endoprosthesis in mandibular reconstruction: Implant design and finite element analysis. Journal of Cranio-Maxillo-Facial Surgery, 2015, 43, 2116-2128.	0.7	34
46	Correlation between strength differential effects in the plastic flow of the matrix and the rate of damage growth in porous polycrystals. Comptes Rendus - Mecanique, 2015, 343, 107-120.	2.1	4
47	Influence of the characteristics of the experimental data set used to identify anisotropy parameters. Simulation Modelling Practice and Theory, 2015, 53, 15-44.	2.2	17
48	Mechanical characterization and constitutive parameter identification of anisotropic tubular materials for hydroforming applications. International Journal of Mechanical Sciences, 2015, 104, 91-103.	3.6	26
49	Micromechanical study of the dilatational response of porous solids with pressure-insensitive matrix displaying tension-compression asymmetry. European Journal of Mechanics, A/Solids, 2015, 51, 44-54.	2.1	6
50	Comparing faceted and smoothed tool surface descriptions in sheet metal forming simulation. International Journal of Material Forming, 2015, 8, 549-565.	0.9	10
51	Trimming of 3D solid finite element meshes: sheet metal forming tests and applications. Engineering With Computers, 2015, 31, 237-257.	3.5	5
52	Long-Term Creep Behavior of the Intervertebral Disk: Comparison between Bioreactor Data and Numerical Results. Frontiers in Bioengineering and Biotechnology, 2014, 2, 56.	2.0	23
53	Importance of the consideration of the specificities of local plastic deformation on the response of porous solids with Tresca matrix. European Journal of Mechanics, A/Solids, 2014, 47, 194-205.	2.1	8
54	Influence of the plastic anisotropy modelling in the reverse deep drawing process simulation. Materials & Design, 2014, 60, 368-379.	5.1	50

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55	Applying Nagata patches to smooth discretized surfaces used in 3D frictional contact problems. Computer Methods in Applied Mechanics and Engineering, 2014, 271, 296-320.	3.4	39
56	Importance of the coupling between the sign of the mean stress and the third invariant on the rate of void growth and collapse in porous solids with a von Mises matrix. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 025005.	0.8	15
57	New Analytical Criterion for Porous Solids with Tresca Matrix. , 2014, 3, 1412-1417.		1
58	Intervertebral disc creep behavior assessment through an open source finite element solver. Journal of Biomechanics, 2014, 47, 297-301.	0.9	21
59	Effect of tendon stiffness on the generated force at the Achilles tendon - 3D finite element simulation of a human triceps surae muscle during isometric contraction. Journal of Biomechanical Science and Engineering, 2014, 9, 13-00294-13-00294.	0.1	5
60	Improving Nagata patch interpolation applied for tool surface description in sheet metal forming simulation. CAD Computer Aided Design, 2013, 45, 639-656.	1.4	19
61	3D reconstruction of a spinal motion segment from 2D medical images: Objective quantification of the geometric accuracy of the FE mesh generation procedure. , 2013, , .		4
62	Nagata patch interpolation using surface normal vectors evaluated from the IGES file. Finite Elements in Analysis and Design, 2013, 72, 35-46.	1.7	22
63	Validation of an Open Source Finite Element Biphasic Poroelastic Model. Application to the Intervertebral Disc Biomechanics. , 2013, , .		3
64	Pre-strain effect on springback of 2D draw bending. International Journal of Materials Engineering Innovation, 2013, 4, 187.	0.2	1
65	Constituive modelling of the annulus fibrosus: Numerical implementation and numerical analysis. , 2013, , .		4
66	Cazacu and Barlat Criterion Identification Using the Cylindrical Cup Deep Drawing Test and the Coupled Artificial Neural Networks â€“ Genetic Algorithm Method. Key Engineering Materials, 2012, 504-506, 637-642.	0.4	5
67	Local bifurcation and instability theory applied to formability analysis. International Journal of Material Forming, 2011, 4, 347-356.	0.9	2
68	Improving Computational Performance through HPC Techniques: case study using DD3IMP in-house code. , 2011, , .		18
69	Finite Element Analysis of the Amontons-Coulombâ€™s Model using Local and Global Friction Tests. AIP Conference Proceedings, 2011, , .	0.3	2
70	Local Bifurcation and Instability Theory Applied to Formability Analysis. , 2010, , .		1
71	Local Interpolation for Tools Surface Description. , 2010, , .		4
72	Finite Element Analysis on the Influence of Material Mechanical Properties in Local Contact Conditions. International Journal of Material Forming, 2010, 3, 139-142.	0.9	1

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73	Finite element analysis of the influence of the restraining force in the draw bend test. International Journal of Material Forming, 2010, 3, 143-146.	0.9	0
74	Numerical study of springback using the split-ring test for an AA5754 aluminum alloy. Finite Elements in Analysis and Design, 2010, 46, 751-759.	1.7	23
75	A deformation based blank design method for formed parts. International Journal of Mechanics and Materials in Design, 2009, 5, 303-314.	1.7	17
76	Stochastic analysis of a deep drawing process using finite element simulations. International Journal of Material Forming, 2009, 2, 347-350.	0.9	9
77	Study on springback in deep drawn tailor welded blanks. International Journal of Material Forming, 2009, 2, 829-832.	0.9	15
78	Numerical study on the influence of initial anisotropy on optimal blank shape. Finite Elements in Analysis and Design, 2009, 45, 71-80.	1.7	17
79	Blank design for deep drawn parts using parametric NURBS surfaces. Journal of Materials Processing Technology, 2009, 209, 2402-2411.	3.1	23
80	Sensitivity study on some parameters in blank design. Materials & Design, 2009, 30, 1223-1230.	5.1	13
81	Algorithms and Strategies for Treatment of Large Deformation Frictional Contact in the Numerical Simulation of Deep Drawing Process. Archives of Computational Methods in Engineering, 2008, 15, 113-162.	6.0	113
82	Numerical simulation and analysis on the deep drawing of LPG bottles. Journal of Materials Processing Technology, 2008, 200, 416-423.	3.1	24
83	Mechanical Modeling and Finite Element Analysis of Porous Cast Products. Journal of the Japan Society for Precision Engineering, 2008, 74, 1273-1277.	0.0	0
84	Influence of Anisotropy Properties in Finite Element Optimization of Blank Shape Using NURBS Surfaces. AIP Conference Proceedings, 2007, , .	0.3	0
85	Influence of Drawbeads in Deep-Drawing of Plane-Strain Channel Sections: Experimental and FE Analysis. AIP Conference Proceedings, 2007, , .	0.3	0
86	Study on the Influence of the Refinement of a 3-D Finite Element Mesh in Springback Evaluation of Plane-Strain Channel Sections. AIP Conference Proceedings, 2007, , .	0.3	8
87	Strategy of Material Parameters Identification for Non Linear Mechanical Behavior: Sensitivity of FE Computation. AIP Conference Proceedings, 2007, , .	0.3	0
88	Kinematic Hardening: Characterization, Modeling and Impact on Springback Prediction. AIP Conference Proceedings, 2007, , .	0.3	1
89	Incremental Volumetric Remapping Method: Analysis and Error Evaluation. AIP Conference Proceedings, 2007, , .	0.3	1
90	Optimization of the Phenomenological Constitutive Models Parameters Using Genetic Algorithms. , 2007, , 35-54.		5

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91	Influence of process parameters on the deep drawing of stainless steel. Finite Elements in Analysis and Design, 2007, 43, 1062-1067.	1.7	129
92	Study on the influence of work-hardening modeling in springback prediction. International Journal of Plasticity, 2007, 23, 516-543.	4.1	147
93	Trimming of 3D solid finite element meshes using parametric surfaces: Application to sheet metal forming. Finite Elements in Analysis and Design, 2006, 42, 1053-1060.	1.7	26
94	Evolutional Friction Law in the Numerical Simulation of the Deep Drawing of a Rail. Materials Science Forum, 2006, 514-516, 1443-1447.	0.3	0
95	Optimizing the Description of Forming Tools with BÃ©zier Surfaces in the Numerical Simulation of the Deep Drawing Process. , 2006, , 332-332.		1
96	Drawbeads: to Be or Not to Be. AIP Conference Proceedings, 2005, , .	0.3	6
97	Study on the Influence of the Work Hardening Models Constitutive Parameters Identification in the Springback Prediction. AIP Conference Proceedings, 2005, , .	0.3	1
98	Application of the Incremental Volumetric Remapping Method in the Simulation of Multi-Step Deep Drawing Processes. AIP Conference Proceedings, 2005, , .	0.3	5
99	Modelling of anisotropic work-hardening behaviour of metallic materials subjected to strain-path changes. Computational Materials Science, 2005, 32, 301-315.	1.4	74
100	Numerical Simulation of the Deep Drawing Process: Modelling the Blank Holder. AIP Conference Proceedings, 2004, , .	0.3	0
101	Springback Evaluation with Several Phenomenological Yield Criteria. Materials Science Forum, 2004, 455-456, 732-736.	0.3	5
102	Numerical Analysis on the Effects of the Friction Coefficient on the Deep Drawing of a Rail. Materials Science Forum, 2004, 455-456, 737-741.	0.3	1
103	Work Hardening Models and the Numerical Simulation of the Deep Drawing Process. Materials Science Forum, 2004, 455-456, 717-722.	0.3	11
104	An advanced constitutive model in the sheet metal forming simulation: the Teodosiu microstructural model and the Cazacu Barlat yield criterion. AIP Conference Proceedings, 2004, , .	0.3	3
105	A benchmark for validation of numerical results in sheet metal forming. Journal of Materials Processing Technology, 2004, 155-156, 1980-1985.	3.1	15
106	Improvement of a frictional contact algorithm for strongly curved contact problems. International Journal for Numerical Methods in Engineering, 2003, 58, 2083-2101.	1.5	30
107	Comparison of Experimental and Simulated Results for a Mild Steel and a Dual-Phase Steel Deformed under Tension and Deep-Drawing. Key Engineering Materials, 2002, 230-232, 549-554.	0.4	2
108	Earing Prediction in Drawing and Ironing Processes Using an Advanced Yield Criterion. Key Engineering Materials, 0, 554-557, 2266-2276.	0.4	5

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109	Sensitivity Analysis of Process Parameters in the Drawing and Ironing Processes. Key Engineering Materials, 0, 554-557, 2256-2265.	0.4	4
110	Applying Nagata Patches in the Description of Smooth Tool Surfaces Used in Sheet Metal Forming Simulations. Key Engineering Materials, 0, 554-557, 2277-2284.	0.4	1
111	FEA OF FRICTIONAL CONTACT PROBLEMS USING NAGATA PATCHES FOR SURFACES DESCRIPTION. , 0, , .		2