FranÃ§ois Ducobu

List of Publications by Year
in descending order

54	874	687363 13	526287 27
papers	citations	h-index	g-index

57	57	57	625
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the importance of the choice of the parameters of the Johnson-Cook constitutive model and their influence on the results of a Ti6Al4V orthogonal cutting model. International Journal of Mechanical Sciences, 2017, 122, 143-155.	6.7	107
2	Numerical contribution to the comprehension of saw-toothed Ti6Al4V chip formation in orthogonal cutting. International Journal of Mechanical Sciences, 2014, 81, 77-87.	6.7	101
3	Application of the Coupled Eulerian-Lagrangian (CEL) method to the modeling of orthogonal cutting. European Journal of Mechanics, A/Solids, 2016, 59, 58-66.	3.7	96
4	Material constitutive model and chip separation criterion influence on the modeling of Ti6Al4V machining with experimental validation in strictly orthogonal cutting condition. International Journal of Mechanical Sciences, 2016, 107, 136-149.	6.7	56
5	Finite element modelling of 3D orthogonal cutting experimental tests with the Coupled Eulerian-Lagrangian (CEL) formulation. Finite Elements in Analysis and Design, 2017, 134, 27-40.	3.2	46
6	On the introduction of adaptive mass scaling in a finite element model of Ti6Al4V orthogonal cutting. Simulation Modelling Practice and Theory, 2015, 53, 1-14.	3.8	45
7	The CEL Method as an Alternative to the Current Modelling Approaches for Ti6Al4V Orthogonal Cutting Simulation. Procedia CIRP, 2017, 58, 245-250.	1.9	45
8	Mesh influence in orthogonal cutting modelling with the Coupled Eulerian-Lagrangian (CEL) method. European Journal of Mechanics, A/Solids, 2017, 65, 324-335.	3.7	36
9	Finite Element Prediction of the Tool Wear Influence in Ti6Al4V Machining. Procedia CIRP, 2015, 31, 124-129.	1.9	35
10	Experimental contribution to the study of the Ti6Al4V chip formation in orthogonal cutting on a milling machine. International Journal of Material Forming, 2015, 8, 455-468.	2.0	30
11	A Systematic Literature Review of Cutting Tool Wear Monitoring in Turning by Using Artificial Intelligence Techniques. Machines, 2021, 9, 351.	2.2	25
12	Dynamic simulation of milling operations with small diameter milling cutters: effect of material heterogeneity on the cutting force model. Meccanica, 2017, 52, 35-44.	2.0	15
13	Coupled Eulerian-Lagrangian (CEL) simulation for modelling of chip formation in AA2024-T3. Procedia CIRP, 2019, 82, 142-147.	1.9	14
14	Behaviour of pre-sintered Y-TZP during machining operations: Determination of recommended cutting parameters. Journal of Manufacturing Processes, 2018, 32, 85-92.	5.9	13
15	Influence of the Material Behavior Law and Damage Value on the Results of an Orthogonal Cutting Finite Element Model of Ti6Al4V. Procedia CIRP, 2013, 8, 379-384.	1.9	11
16	Influence on surface characteristics of electron beam melting process (EBM) by varying the process parameters. AIP Conference Proceedings, 2017, , .	0.4	10
17	Experimental and numerical investigation of the uncut chip thickness reduction in Ti6Al4V orthogonal cutting. Meccanica, 2017, 52, 1577-1592.	2.0	10
18	Comparison of Several Behaviour Laws Intended to Produce a Realistic Ti6Al4V Chip by Finite Elements Modelling. Key Engineering Materials, 2015, 651-653, 1197-1203.	0.4	9

#	Article	IF	Citations
19	Chemical etching as a finishing process for electron beam melting (EBM) parts. AIP Conference Proceedings, 2019, , .	0.4	9
20	On the selection of an empirical material constitutive model for the finite element modeling of Ti6Al4V orthogonal cutting, including the segmented chip formation. International Journal of Material Forming, 2021, 14, 361-374.	2.0	9
21	Influence of the Choice of the Parameters on Constitutive Models and their Effects on the Results of Ti6Al4V Orthogonal Cutting Simulation. Procedia Manufacturing, 2020, 47, 458-465.	1.9	8
22	Dynamic Simulation of the Micro-Milling Process Including Minimum Chip Thickness and Size Effect. Key Engineering Materials, 2012, 504-506, 1269-1274.	0.4	7
23	Characterisation of electron beam melting process on Ti6Al4V in order to guide finishing operation. International Journal of Rapid Manufacturing, 2015, 5, 320.	0.5	7
24	Impact of chemical polishing on surface roughness and dimensional quality of electron beam melting process (EBM) parts. AIP Conference Proceedings, 2018, , .	0.4	7
25	Comparison of Johnson-Cook and modified Johnson-Cook material constitutive models and their influence on finite element modelling of Ti6Al4V orthogonal cutting process. AIP Conference Proceedings, 2019, , .	0.4	7
26	Evaluation of different flow stress laws coupled with a physical based ductile failure criterion for the modelling of the chip formation process of Ti-6Al-4V under broaching conditions. Procedia CIRP, 2019, 82, 65-70.	1.9	7
27	Green Ceramic Machining: Influence of the Cutting Speed and the Binder Percentage on the Y-TZP Behavior. Journal of Manufacturing and Materials Processing, 2020, 4, 50.	2.2	7
28	An Analytic Approach to the Cox Proportional Hazards Model for Estimating the Lifespan of Cutting Tools. Journal of Manufacturing and Materials Processing, 2020, 4, 27.	2.2	7
29	A Lagrangian FEM Model to Produce Saw-Toothed Macro-Chip and to Study the Depth of Cut Influence on its Formation in Orthogonal Cutting of Ti6Al4V. Advanced Materials Research, 2011, 223, 3-11.	0.3	6
30	Cutting Force Prediction in Robotic Machining. Procedia CIRP, 2019, 82, 509-514.	1.9	6
31	Influence of Conventional Machining on Chemical Finishing of Ti6Al4V Electron Beam Melting Parts. Procedia Manufacturing, 2020, 47, 1036-1042.	1.9	6
32	Surface drag analysis after Ti-6Al-4V orthogonal cutting using grid distortion. Procedia CIRP, 2020, 87, 372-377.	1.9	6
33	Inverse Identification of the Ductile Failure Law for Ti6Al4V Based on Orthogonal Cutting Experimental Outcomes. Metals, 2021, 11, 1154.	2.3	6
34	Sensitivity Analysis of Various Geometries of PCD and Cemented Tungsten Carbide Cutting Tools during the Milling of GFRP Composite. Polymers, 2022, 14, 1524.	4.5	6
35	Dystamill: a framework dedicated to the dynamic simulation of milling operations for stability assessment. International Journal of Advanced Manufacturing Technology, 2018, 98, 2109-2126.	3.0	5
36	Green Ceramic Machining: Determination of the Recommended Feed Rate for Y-TZP Milling. Journal of Composites Science, 2021, 5, 231.	3.0	5

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37	The Mechanics of Machining Ultrafine-Grained Grade 2 Ti Processed Severe Plastic Deformation. Manufacturing Technology, 2016, 16, 627-633.	1.4	5
38	Effect of HIPping (Hot Isostatic Pressing) on electron beam melting Ti6Al4V parts after machining. AIP Conference Proceedings, 2016, , .	0.4	4
39	Modelling of Pocket Milling Operation Considering Cutting Forces and CNC Control Inputs. Procedia CIRP, 2017, 58, 239-244.	1.9	4
40	Surface finishing of EBM parts by (electro-)chemical etching. Procedia CIRP, 2022, 108, 112-117.	1.9	4
41	Identification of the Parameter Values of the Constitutive and Friction Models in Machining Using EGO Algorithm: Application to Ti6Al4V. Metals, 2022, 12, 976.	2.3	4
42	2D simulations of orthogonal cutting of CFRP: Effect of tool angles on parameters of cut and chip morphology. AIP Conference Proceedings, 2018, , .	0.4	3
43	Experimental investigation on green ceramic machining with nanosecond laser source. Journal of Manufacturing Processes, 2021, 61, 245-253.	5.9	3
44	Influence of Constitutive Models and the Choice of the Parameters on FE Simulation of Ti6Al4V Orthogonal Cutting Process for Different Uncut Chip Thicknesses. Journal of Manufacturing and Materials Processing, 2021, 5, 56.	2.2	3
45	Uncertainty Management of Cutting Forces Parameters and its Effects on Machining Stability. Key Engineering Materials, 2015, 651-653, 1165-1170.	0.4	2
46	Estimation of the influence of tool wear on force signals: A finite element approach in AISI 1045 orthogonal cutting. AIP Conference Proceedings, 2018, , .	0.4	2
47	Finite-element simulations of Al7075-T6 orthogonal cutting: Effect of part geometry and mesh on chip morphology and formation mechanism. AIP Conference Proceedings, 2019, , .	0.4	2
48	Use of Longitudinal Roughness Measurements as Tool End-of-Life Indicator in AISI 1045 Dry Longitudinal Turning. Materials Science Forum, 0, 986, 93-101.	0.3	2
49	Binder influence on green ceramic machining by means of milling and laser machining. Procedia CIRP, 2021, 101, 206-209.	1.9	2
50	Prediction of local sintering in laser beam machining of green Y-TZP ceramic. CIRP Annals - Manufacturing Technology, 2020, 69, 225-228.	3.6	2
51	Corner smoothing of 2D milling toolpath using b-spline curve by optimizing the contour error and the feedrate. AIP Conference Proceedings, 2018, , .	0.4	1
52	Performance simulation of different toolpaths in 2D1/2 pocket milling. AIP Conference Proceedings, 2019, , .	0.4	1
53	Hole quality analysis of AISI 304-GFRP stacks using robotic drilling. Procedia CIRP, 2022, 108, 436-441.	1.9	1
54	Cutting Tools Replacement: Toward a Holistic Framework. IFAC-PapersOnLine, 2020, 53, 227-232.	0.9	0