

# Michela Simoncini

## List of Publications by Year in descending order

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90  
papers

1,483  
citations

331642

21  
h-index

377849

34  
g-index

92  
all docs

92  
docs citations

92  
times ranked

1001  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of the lubrication-cooling technique, insert technology and machine bed material on the workpart surface finish and tool wear in finish turning of AISI 420B. <i>International Journal of Machine Tools and Manufacture</i> , 2006, 46, 1547-1554.	13.4	99
2	Effect of the welding parameters and tool configuration on micro- and macro-mechanical properties of similar and dissimilar FSWed joints in AA5754 and AZ31 thin sheets. <i>Materials &amp; Design</i> , 2012, 41, 50-60.	5.1	85
3	Modelling of the rheological behaviour of aluminium alloys in multistep hot deformation using the multiple regression analysis and artificial neural network techniques. <i>Journal of Materials Processing Technology</i> , 2006, 177, 323-326.	6.3	80
4	Effect of temperature, strain rate and fibre orientation on the plastic flow behaviour and formability of AZ31 magnesium alloy. <i>Journal of Materials Processing Technology</i> , 2010, 210, 1354-1363.	6.3	71
5	Hard turning of an alloy steel on a machine tool with a polymer concrete bed. <i>Journal of Materials Processing Technology</i> , 2008, 202, 493-499.	6.3	66
6	Tool wear and hole quality in drilling of CFRP/AA7075 stacks with DLC and nanocomposite TiAlN coated tools. <i>Journal of Manufacturing Processes</i> , 2017, 30, 582-592.	5.9	57
7	Double side friction stir welding of AA6082 sheets: Microstructure and nanoindentation characterization. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 590, 209-217.	5.6	50
8	Mechanical properties and microstructure of joints in AZ31 thin sheets obtained by friction stir welding using $\phi$ and $\phi$ tool configurations. <i>Materials &amp; Design</i> , 2012, 34, 219-229.	5.1	49
9	Frictional behaviour of AA7075-O aluminium alloy in high speed tests. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 89, 1-12.	3.0	47
10	Sustainability Analysis of Friction Stir Welding of AA5754 Sheets. <i>Procedia CIRP</i> , 2017, 62, 529-534.	1.9	44
11	Effect of process parameters on vertical forces and temperatures developed during friction stir welding of magnesium alloys. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 85, 595-604.	3.0	40
12	Surface roughness modelling in finish face milling under MQL and dry cutting conditions. <i>International Journal of Material Forming</i> , 2008, 1, 503-506.	2.0	35
13	Effect of welding motion and pre-/post-annealing of friction stir welded AA5754 joints. <i>Materials and Design</i> , 2016, 93, 146-159.	7.0	33
14	Life cycle impact assessment of different manufacturing technologies for automotive CFRP components. <i>Journal of Cleaner Production</i> , 2020, 271, 122677.	9.3	31
15	Comparison among the environmental impact of solid state and fusion welding processes in joining an aluminium alloy. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2020, 234, 140-156.	2.4	29
16	Plastic flow behaviour and formability of friction stir welded joints in AZ31 thin sheets obtained using the $\phi$ tool configuration. <i>Materials &amp; Design</i> , 2012, 36, 123-129.	5.1	28
17	Air bending of AZ31 magnesium alloy in warm and hot forming conditions. <i>Journal of Materials Processing Technology</i> , 2006, 177, 373-376.	6.3	27
18	Influence of Process Parameters on the Vertical Forces Generated during Friction Stir Welding of AA6082-T6 and on the Mechanical Properties of the Joints. <i>Metals</i> , 2017, 7, 350.	2.3	23

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19	Prediction of the vertical force during FSW of AZ31 magnesium alloy sheets using an artificial neural network-based model. <i>Neural Computing and Applications</i> , 2019, 31, 7211-7226.	5.6	23
20	New Approaches to Friction Stir Welding of Aluminum Light-Alloys. <i>Metals</i> , 2020, 10, 233.	2.3	23
21	Prediction of flow curves and forming limit curves of Mg alloy thin sheets using ANN-based models. <i>Computational Materials Science</i> , 2011, 50, 3184-3197.	3.0	22
22	Friction Stir Welding of Magnesium Alloys under Different Process Parameters. <i>Materials Science Forum</i> , 0, 638-642, 3954-3959.	0.3	21
23	Micro- and Macro- Mechanical Properties of Pinless Friction Stir Welded Joints in AA5754 Aluminium Thin Sheets. <i>Procedia CIRP</i> , 2014, 18, 9-14.	1.9	21
24	High Strain Rate Behaviour of AA7075 Aluminum Alloy at Different Initial Temper States. <i>Key Engineering Materials</i> , 0, 651-653, 114-119.	0.4	21
25	Formability and Microstructure of AZ31 Magnesium Alloy Sheets. <i>Key Engineering Materials</i> , 2007, 344, 31-38.	0.4	18
26	Manufacturing of Isogrid Composite Structures by 3D Printing. <i>Procedia Manufacturing</i> , 2020, 47, 1096-1100.	1.9	18
27	Mechanical Properties and Formability of Cold Rolled Friction Stir Welded Sheets in AA5754 for Automotive Applications. <i>Procedia Engineering</i> , 2017, 183, 245-250.	1.2	17
28	Characterisation of AZ31B magnesium alloy formability in warm forming conditions. <i>International Journal of Material Forming</i> , 2008, 1, 205-208.	2.0	16
29	A new sustainable direct solid state recycling of AA1090 aluminum alloy chips by means of friction stir back extrusion process. <i>Procedia CIRP</i> , 2019, 79, 638-643.	1.9	16
30	Development of double-side friction stir welding to improve post-welding formability of joints in AA6082 aluminium alloy. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2016, 230, 807-817.	2.4	15
31	Effect of Cold Rolling on the Mechanical Properties and Formability of FSWed Sheets in AA5754-H114. <i>Metals</i> , 2018, 8, 223.	2.3	15
32	3D printing and testing of composite isogrid structures. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 109, 1881-1893.	3.0	15
33	Process parameters effect on environmental sustainability of composites FFF technology. <i>Materials and Manufacturing Processes</i> , 2022, 37, 591-601.	4.7	15
34	Mechanical properties and formability of metal-polymer-metal sandwich composites. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 107, 3333-3349.	3.0	14
35	Experimental and numerical investigation on forming limit curves of AA6082 aluminum alloy at high strain rates. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 112, 1973-1991.	3.0	13
36	Post-welding formability of AZ31 magnesium alloy. <i>Materials &amp; Design</i> , 2011, 32, 2988-2991.	5.1	12

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37	Effect of Geometric Parameters and Moisture Content on the Mechanical Performances of 3D-Printed Isogrid Structures in Short Carbon Fiber-Reinforced Polyamide. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 5100-5107.	2.5	12
38	Effect of Cavitation Peening on Fatigue Properties in Friction Stir Welded Aluminum Alloy AA5754. <i>Metals</i> , 2021, 11, 59.	2.3	12
39	Constitutive Models for AZ31 Magnesium Alloys. <i>Key Engineering Materials</i> , 2008, 367, 87-94.	0.4	11
40	Formability of Friction Stir Welded AZ31 Magnesium Alloy Sheets. <i>Materials Science Forum</i> , 2010, 638-642, 1249-1254.	0.3	11
41	Performance analysis of MWCNT/Epoxy composites produced by CRTM. <i>Journal of Materials Processing Technology</i> , 2020, 286, 116839.	6.3	11
42	Environmental and buckling performance analysis of 3D printed composite isogrid structures. <i>Procedia CIRP</i> , 2021, 98, 458-463.	1.9	10
43	Experimental and Numerical Analysis on FSWed Magnesium Alloy Thin Sheets Obtained Using a Pinless Tool. <i>Key Engineering Materials</i> , 0, 504-506, 747-752.	0.4	9
44	Adapted Nakazima test to evaluate dynamic effect on strain distribution and dome height in balanced biaxial stretching condition. <i>International Journal of Mechanical Sciences</i> , 2018, 148, 50-63.	6.7	9
45	Constant Heat Input Friction Stir Welding of Variable Thickness AZ31 Sheets Through In-Process Tool Rotation Control. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2019, 141, .	2.2	9
46	Environmental impact assessment of zero waste approach for carbon fiber prepreg scraps. <i>Sustainable Materials and Technologies</i> , 2021, 29, e00308.	3.3	9
47	Reverse Engineering and Scanning Electron Microscopy Applied to the Characterization of Tool Wear in Dry Milling Processes. <i>Procedia CIRP</i> , 2017, 62, 233-238.	1.9	8
48	Post-FSW Cold-Rolling Simulation of ECAP Shear Deformation and Its Microstructure Role Combined to Annealing in a FSWed AA5754 Plate Joint. <i>Materials</i> , 2019, 12, 1526.	2.9	8
49	Mechanical properties of carbon fiber reinforced plastic obtained by the automatic deposition of an innovative towpreg. <i>Procedia CIRP</i> , 2020, 88, 451-456.	1.9	8
50	Life cycle impact assessment of safety shoes toe caps realized with reclaimed composite materials. <i>Journal of Cleaner Production</i> , 2022, 347, 131321.	9.3	8
51	Effect of the $\dot{\gamma}/v$ ratio and sheet thickness on mechanical properties of magnesium alloy FSWED joints. <i>International Journal of Material Forming</i> , 2010, 3, 1007-1010.	2.0	7
52	Robotic automated fiber placement of carbon fiber towpregs. <i>Materials and Manufacturing Processes</i> , 2022, 37, 539-547.	4.7	7
53	Warm Formability of AZ31 Magnesium Alloy Sheets under Different Process Conditions. <i>Materials Science Forum</i> , 0, 604-605, 379-387.	0.3	6
54	Similar and Dissimilar FSWed Joints in Lightweight Alloys: Heating Distribution Assessment and IR Thermography Monitoring for On-Line Quality Control. <i>Key Engineering Materials</i> , 0, 554-557, 1055-1064.	0.4	6

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55	Bending and Stamping Processes of FSWed Thin Sheets in AA1050 Alloy. Key Engineering Materials, 2014, 622-623, 459-466.	0.4	6
56	In-process control strategies for friction stir welding of AZ31 sheets with non-uniform thickness. International Journal of Advanced Manufacturing Technology, 2018, 95, 493-504.	3.0	6
57	Buckling behavior of 3D printed composite isogrid structures. Procedia CIRP, 2021, 99, 375-380.	1.9	6
58	Experimental Analysis and Optimization to Maximize Ultimate Tensile Strength and Ultimate Elongation of Friction Stir Welded AA6082 Aluminum Alloy. Metals, 2021, 11, 69.	2.3	6
59	Thickness Effect on the Formability of AZ31 Magnesium Alloy Sheets. Key Engineering Materials, 0, 473, 313-318.	0.4	5
60	Effect of the Rolling Temperature on Hot Formability of ZAM100 Magnesium Alloy. Procedia CIRP, 2018, 67, 493-497.	1.9	5
61	Study of tapping process of carbon fiber reinforced plastic composites/AA7075 stacks. AIP Conference Proceedings, 2018, , .	0.4	5
62	A sustainable solid state recycling of pure aluminum by means of friction stir extrusion process (FSE). AIP Conference Proceedings, 2018, , .	0.4	5
63	High-Speed Deformation of Pinless FSWed Thin Sheets in AA6082 Alloy. Metals, 2020, 10, 15.	2.3	5
64	Environmental assessment of an automated impregnation process of carbon fiber tows. Procedia CIRP, 2020, 88, 445-450.	1.9	5
65	Investigation on Corrosion Resistance Properties of 17-4 PH Bound Metal Deposition As-Sintered Specimens with Different Build-Up Orientations. Metals, 2022, 12, 588.	2.3	5
66	Friction Stir Processing at High Rotation Rates of a Magnesium Alloy: Mechanical Properties at High Temperatures and Microstructure. Materials Science Forum, 2016, 879, 295-300.	0.3	4
67	In-process tool force and rotation variation to control sheet thickness change in friction stir welding of magnesium alloys. AIP Conference Proceedings, 2016, , .	0.4	4
68	In-process Control of Rotational Speed in Friction Stir Welding of Sheet Blanks with Variable Mechanical Properties. Procedia CIRP, 2018, 67, 440-445.	1.9	4
69	Benchmarking the sustainable manufacturing paradigm via automatic analysis and clustering of scientific literature: A perspective from Italian technologists. Procedia Manufacturing, 2019, 33, 153-159.	1.9	4
70	Solid State Joining of Thin Hybrid Sandwiches Made of Steel and Polymer: a Feasibility Study. Procedia Manufacturing, 2020, 47, 400-405.	1.9	4
71	Robotic Friction Stir Welding of AA5754 Aluminum Alloy Sheets at Different Initial Temper States. Key Engineering Materials, 2014, 622-623, 540-547.	0.4	3
72	Evaluation of Friction at High Strain Rate using the Split Hopkinson Bar. Key Engineering Materials, 0, 651-653, 108-113.	0.4	3

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73	Design of Stamping Processes of Pinless FSWed Thin Sheets in AA1050 Alloy for Motomotive Applications Using FEM. <i>Procedia Engineering</i> , 2017, 183, 213-218.	1.2	3
74	Flow curve prediction of ZAM100 magnesium alloy sheets using artificial neural network-based models. <i>Procedia CIRP</i> , 2019, 79, 661-666.	1.9	3
75	Comparison between the mechanical properties and environmental impacts of 3D printed synthetic and bio-based composites. <i>Procedia CIRP</i> , 2022, 105, 380-385.	1.9	3
76	The use of 3D printed models for the pre-operative planning of surgical correction of pediatric hip deformities: a case series and concise review of the literature.. <i>Acta Biomedica</i> , 2022, 92, e2021221.	0.3	3
77	Evaluation of Friction Coefficient in Tube Drawing Processes. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	2
78	A statistically based methodology in the identification of friction welding parameters. , 2011, , .		2
79	New Approaches to the Friction Stir Welding of Aluminum Alloys. , 2016, , .		2
80	Process Parameter Effects on the LDR in Warm Deep Drawing of Magnesium Alloys. <i>Key Engineering Materials</i> , 2009, 410-411, 587-593.	0.4	1
81	In-process tool rotational speed variation with constant heat input in friction stir welding of AZ31 sheets with variable thickness. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	1
82	Mechanical properties of sandwich composite panels. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	1
83	Formability and Grained Structure Refinement of Cold-Rolled Friction Stir Welded AA5754 Sheet. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 611, 012001.	0.6	1
84	Effect of Carbon Nanotubes Dispersion on the Microhardness of CFRP Composites. <i>Key Engineering Materials</i> , 2019, 813, 370-375.	0.4	1
85	Tensile Behavior and Formability of Pre-Painted Steel Sheets. <i>Metals</i> , 2020, 10, 53.	2.3	1
86	Deformation behavior of pre-painted steel sheets. <i>Procedia CIRP</i> , 2021, 99, 266-271.	1.9	1
87	Formability and Microstructure of AZ31 Magnesium Alloy Sheets. <i>Key Engineering Materials</i> , 0, , 31-38.	0.4	1
88	Study of high strain rate effect on sheet formability based on Nakazima test. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0
89	Buckling Behavior of Isogrid Composite Structures Obtained by Fused Deposition Modeling Technique. , 2020, , .		0
90	Assessing 3-D Printing in Hip Replacement Surgical Planning.. <i>Radiologic Technology</i> , 2022, 93, 246-254.	0.1	0