Jens SÃ¶lter

List of Publications by Year
in descending order

52 papers	727 citations	623734 14 h-index	552781 26 g-index
53 all docs	53 docs citations	53 times ranked	358 citing authors

#	Article	IF	Citations
1	Process Signatures â€“ A New Approach to Solve the Inverse Surface Integrity Problem in Machining Processes. Procedia CIRP, 2014, 13, 429-434.	1.9	119
2	Process Signatures - The Missing Link to Predict Surface Integrity in Machining. Procedia CIRP, 2018, 71, 3-10.	1.9	57
3	Heat partitioning in dry milling of steel. CIRP Annals - Manufacturing Technology, 2012, 61, 87-90.	3.6	55
4	Prediction of shape deviations in machining. CIRP Annals - Manufacturing Technology, 2009, 58, 507-510.	3.6	51
5	Distortion minimization of disks for gear manufacture. International Journal of Machine Tools and Manufacture, 2011, 51, 331-338.	13.4	46
6	Underlying Mechanisms for Developing Process Signatures in Manufacturing. Nanomanufacturing and Metrology, 2018, 1, 193-208.	3.0	39
7	Distortion Engineering â€“ Identification of Causes for Dimensional and Form Deviations of Bearing Rings. CIRP Annals - Manufacturing Technology, 2007, 56, 109-112.	3.6	36
8	Finite element simulations of the material loads and residual stresses in milling utilizing the CEL method. Procedia CIRP, 2020, 87, 539-544.	1.9	30
9	Prediction of Shape Deviations in Face Milling of Steel. Procedia CIRP, 2013, 8, 15-20.	1.9	28
10	A Versatile Method to Determine Thermal Limits in Grinding. Procedia CIRP, 2014, 13, 131-136.	1.9	25
11	Experimental and Numerical Analysis of Residual Stress Change Caused by Thermal Loads During Grinding. Procedia CIRP, 2016, 45, 51-54.	1.9	22
12	Influence of turning parameters on distortion of bearing rings. Production Engineering, 2007, 1, 135-139.	2.3	19
13	Identification of process parameters affecting distortion of disks for gear manufacture Part I: casting, forming and machining. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 354-360.	0.9	16
14	A Simulation Based Development of Process Signatures for Manufacturing Processes with Thermal Loads. Procedia CIRP, 2016, 45, 327-330.	1.9	15
15	Efficient two-scale FE-FFT-based mechanical process simulation of elasto-viscoplastic polycrystals at finite strains. Computer Methods in Applied Mechanics and Engineering, 2021, 374, 113566.	6.6	14
16	Effect of Machining Parameters and Clamping Technique on Residual Stresses and Distortion of Bearing Rings. Materialwissenschaft Und Werkstofftechnik, 2006, 37, 45-51.	0.9	13
17	Identification of process parameters affecting distortion of disks for gear manufacture - Part II: heating, carburizing, quenching. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 361-367.	0.9	12
18	Influence of the workpiece material on the cutting performance in low frequency vibration assisted drilling. CIRP Journal of Manufacturing Science and Technology, 2020, 31, 140-152.	4.5	11

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19	Analysis of internal material loads and Process Signature Components in deep rolling. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 400-409.	4.5	11
20	Residual Stresses in High Speed Turning of Thin-Walled Cylindrical Workpieces. International Journal of Automation Technology, 2011, 5, 313-319.	1.0	10
21	Modeling and simulation of ring deformation due to clamping. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 380-384.	0.9	8
22	Improving the shape quality of bearing rings in soft turning by using a Fast Tool Servo. Production Engineering, 2009, 3, 469-474.	2.3	8
23	Enhanced method for the evaluation of the thermal impact of dry machining processes. Production Engineering, 2014, 8, 291-300.	2.3	8
24	Development and Validation of a Hybrid Model for the Prediction of Shape Deviations in dry Machining Processes. Procedia CIRP, 2015, 31, 346-351.	1.9	6
25	An analytical multilayer source stress approach for the modelling of material modifications in machining. CIRP Annals - Manufacturing Technology, 2017, 66, 531-534.	3.6	6
26	Analysis of rear contacted solar cell structures for cost-effective processes and materials. , 2000, , .		5
27	Influence of the turning process on the distortion of disks for gear manufacture. Production Engineering, 2011, 5, 613-620.	2.3	5
28	A simulation-based analysis of internal material loads and material modifications in multi-step deep rolling. Procedia CIRP, 2020, 87, 515-520.	1.9	5
29	Influence of characteristic material properties on machinability under high speed cutting. International Journal of Machining and Machinability of Materials, 2008, 4, 419.	0.1	4
30	INFLUENCE OF CLAMPING STRATEGIES ON ROUNDNESS DEVIATIONS OF TURNED RINGS. Machining Science and Technology, 2011, 15, 338-355.	2.5	4
31	Partition of Primary Shear Plane Heat in Orthogonal Metal Cutting. Journal of Manufacturing and Materials Processing, 2020, 4, 82.	2.2	4
32	Comparison of Process Signatures for thermally dominated processes. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 217-235.	4.5	4
33	Relationship between strain distributions and shape deviations of rings caused in clamping. Materialwissenschaft Und Werkstofftechnik, 2012, 43, 23-28.	0.9	3
34	Analysing Internal Material Loads in Manufacturing Processes. Advanced Materials Research, 0, 1018, 83-90.	0.3	3
35	A Comparative Study of the Influence of the Strain-Hardening in Chip Formation Simulations using Different Software Packages. Procedia CIRP, 2019, 82, 43-46.	1.9	3
36	Finite element simulation of low frequency vibration-assisted drilling with modification of oscillation modes. Procedia CIRP, 2021, 102, 168-173.	1.9	3

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37	Numerical investigation of the influence of multiple loads on material modifications during hard milling. Procedia CIRP, 2021, 102, 500-505.	1.9	3
38	Modellentwicklung zur Minimierung von Geometrieabweichungen. ZWF Zeitschrift Fuer Wirtschaftlichen Fabrikbetrieb, 2012, 107, 224-228.	0.3	3
39	Thermal Modelling of Drilling Steel. Advanced Materials Research, 0, 1140, 205-212.	0.3	2
40	Analysis of the distortion and compensation potential in grindâ€hardening of linear guides. Materialwissenschaft Und Werkstofftechnik, 2016, 47, 726-734.	0.9	2
41	Effects of Model Reduction on Simulated Temperature Fields in Milling. Procedia CIRP, 2017, 58, 511-516.	1.9	2
42	A Three Dimensional Calculation Approach for the Heat Flux Density Distribution in Face Milling. Procedia CIRP, 2019, 82, 8-13.	1.9	2
43	Development of a hybrid model for the prediction of shape deviations in milling. Materialwissenschaft Und Werkstofftechnik, 2016, 47, 718-725.	0.9	1
44	Combined laser and deep rolling process as a means to study thermo-mechanical processes. Procedia CIRP, 2021, 102, 369-374.	1.9	1
45	Modelling and Simulation of Mechanical Loads and Residual Stresses in Deep Rolling at Elevated Temperature. Journal of Manufacturing and Materials Processing, 2021, 5, 76.	2.2	1
46	Einfluss charakteristischer Werkstoffeigenschaften auf die Zerspanbarkeit bei hohen Schnittgeschwindigkeiten. HTM - Journal of Heat Treatment and Materials, 2004, 59, 388-395.	0.2	1
47	Partitioning of primary shear zone heat in face milling. CIRP Annals - Manufacturing Technology, 2022, 71, 53-56.	3.6	1
48	Modification of the Johnsonâ€“Cook Material Model for Improved Simulation of Hard Milling High-Performance Steel Components. Applied Mechanics, 2021, 2, 571-580.	1.5	0
49	Heat Partitioning in Dry Milling. , 2014, , 627-632.		0
50	Heat Partitioning in Dry Milling. , 2018, , 1-5.		0
51	Heat Partitioning in Dry Milling. , 2019, , 864-868.		0
52	Wechselverfestigung beim FrÃsen von Stahl/Kinematic hardening in steel 42CrMo4. WT Werkstattstechnik, 2021, 111, 612-616.	0.2	0