

Ton van den Boogaard

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

141 papers	2,103 citations	25 h-index	42 g-index
153 ext. papers	2,440 ext. citations	2.7 avg, IF	5.29 L-index

#	Paper	IF	Citations
141	Effect of temperature and heat generation on martensitic phase transformation in DH steels. <i>Results in Materials</i> , 2022 , 14, 100281	2.3	
140	Surface Texture Design for Sheet Metal Forming Applications. <i>Minerals, Metals and Materials Series</i> , 2022 , 703-711	0.3	
139	Evaluation of POD based surrogate models of fields resulting from nonlinear FEM simulations. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2021 , 8,	2.7	1
138	Mixed lubrication friction model including surface texture effects for sheet metal forming. <i>Journal of Materials Processing Technology</i> , 2021 , 291, 117035	5.3	5
137	Effect of heating temperatures on AlSi coating microstructure and fracture during hot-tensile tests. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021 , 1157, 012018	0.4	
136	Modeling boundary friction of coated sheets in sheet metal forming. <i>Tribology International</i> , 2021 , 153, 106554	4.9	9
135	Evolution of real area of contact due to combined normal load and sub-surface straining in sheet metal. <i>Friction</i> , 2021 , 9, 840-855	5.6	2
134	Investigating AlSi coating fracture at high temperatures using acoustic emission sensors. <i>Surface and Coatings Technology</i> , 2021 , 423, 127587	4.4	3
133	Numerical and experimental studies of AlSi coating microstructure and its fracture at high temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 827, 142067	5.3	0
132	Topology Optimization for additive manufacturing with distortion constraints. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 386, 114095	5.7	4
131	Return mapping algorithm for elasto-plastic deformation of thin walled pipes. <i>International Journal of Pressure Vessels and Piping</i> , 2020 , 188, 104245	2.4	0
130	Modeling Mixed Lubrication Friction for Sheet Metal Forming Applications. <i>Procedia Manufacturing</i> , 2020 , 47, 586-590	1.5	8
129	Modelling of Friction in Hot Stamping. <i>Procedia Manufacturing</i> , 2020 , 47, 596-601	1.5	4
128	From specified product tolerance to acceptable material and process scatter: an inverse robust optimization approach. <i>International Journal of Material Forming</i> , 2020 , 13, 467-478	2	1
127	Cracking Behavior of Coating during Hot Tensile Tests of AlSi-Coated Press Hardening Steel. <i>Procedia Manufacturing</i> , 2020 , 47, 602-607	1.5	5
126	Semi-analytical contact model to determine the flattening behavior of coated sheets under normal load. <i>Tribology International</i> , 2020 , 146, 106182	4.9	6
125	An RVE-Based Study of the Effect of Martensite Banding on Damage Evolution in Dual Phase Steels. <i>Materials</i> , 2020 , 13,	3.5	1

124	Combined athermal and isothermal martensite to austenite reversion kinetics, experiment and modelling. <i>Materials and Design</i> , 2020 , 196, 109124	8.1	5
123	A New in-Plane Bending Test to Determine Flow Curves for Materials with Low Uniform Elongation. <i>Experimental Mechanics</i> , 2020 , 60, 1225-1238	2.6	3
122	Exploiting data in smart factories: real-time state estimation and model improvement in metal forming mass production. <i>International Journal of Material Forming</i> , 2020 , 13, 663-673	2	7
121	The implications of non-anatomical positioning of a meniscus prosthesis on predicted human knee joint biomechanics. <i>Medical and Biological Engineering and Computing</i> , 2020 , 58, 1341-1355	3.1	2
120	Friction in sheet metal forming: influence of surface roughness and strain rate on sheet metal forming simulation results. <i>Procedia Manufacturing</i> , 2019 , 29, 512-519	1.5	23
119	Evaluation and assessment of non-normal output during robust optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019 , 59, 2063-2076	3.6	3
118	Robust optimization based on analytical evaluation of uncertainty propagation. <i>Engineering Optimization</i> , 2019 , 51, 1581-1603	2	4
117	A noninvasive MRI based approach to estimate the mechanical properties of human knee ligaments. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 93, 43-51	4.1	6
116	Experimental investigation of pinching phenomena in cold rolling of thin steel sheets 2019 ,		1
115	On the choice of basis in proper orthogonal decomposition-based surrogate models 2019 ,		1
114	Finite element modeling of pipe-laying dynamics using corotational elements. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2019 , 20, 293-307	0.7	
113	Bayesian Model-based State Estimation for Mass Production Metal Forming. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 651, 012095	0.4	
112	Microscopic investigation of damage mechanisms and anisotropic evolution of damage in DP600. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 739, 348-356	5.3	13
111	The effects of temperature on friction and wear mechanisms during direct press hardening of Al-Si coated ultra-high strength steel. <i>Wear</i> , 2018 , 406-407, 149-155	3.5	31
110	An Insight in Friction and Wear Mechanisms during Hot Stamping. <i>Key Engineering Materials</i> , 2018 , 767, 131-138	0.4	6
109	On the nonlinear anelastic behavior of AHSS. <i>International Journal of Solids and Structures</i> , 2018 , 151, 2-8	3.1	15
108	A Continuum Model for the Effect of Dynamic Recrystallization on the Stress?Strain Response. <i>Materials</i> , 2018 , 11,	3.5	3
107	Multi-Scale Contact Modeling of Coated Steels for Sheet Metal Forming Applications. <i>Key Engineering Materials</i> , 2018 , 767, 223-231	0.4	5

106	A constitutive law based on the self-consistent homogenization theory for improved springback simulation of a dual-phase steel. <i>Journal of Physics: Conference Series</i> , 2018 , 1063, 012120	0.3	
105	Friction in Sheet Metal Forming: Forming Simulations of Dies in Try-Out. <i>Journal of Physics: Conference Series</i> , 2018 , 1063, 012134	0.3	1
104	Feedforward control of sheet bending based on force measurements. <i>Journal of Manufacturing Processes</i> , 2018 , 31, 260-272	5	6
103	Friction in Sheet Metal Forming Simulations: Modelling of New Sheet Metal Coatings and Lubricants. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 418, 012093	0.4	2
102	Tool Texturing for Deep Drawing Applications. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018 , 418, 012095	0.4	2
101	The evolution of mechanical properties of AISI 301 as a result of phase reversion heat treatment, experiment and modeling. <i>Journal of Physics: Conference Series</i> , 2018 , 1063, 012106	0.3	
100	A Class of Rate-Independent Lower-Order Gradient Plasticity Theories: Implementation and Application to Disc Torsion Problem. <i>Materials</i> , 2018 , 11,	3.5	2
99	Temperature dependent micromechanics-based friction model for cold stamping processes. <i>Journal of Physics: Conference Series</i> , 2018 , 1063, 012136	0.3	5
98	Friction and wear mechanisms during hot stamping of AISi coated press hardening steel. <i>Wear</i> , 2017 , 380-381, 137-145	3.5	29
97	Estimating product-to-product variations in metal forming using force measurements 2017 ,		5
96	The influence of ligament modelling strategies on the predictive capability of finite element models of the human knee joint. <i>Journal of Biomechanics</i> , 2017 , 65, 1-11	2.9	39
95	Sequential improvement for robust optimization using an uncertainty measure for radial basis functions. <i>Structural and Multidisciplinary Optimization</i> , 2017 , 55, 1345-1363	3.6	22
94	Implementation and application of a gradient enhanced crystal plasticity model 2017 ,		1
93	Efficient calculation of uncertainty propagation with an application in robust optimization of forming processes 2017 ,		1
92	A nonlinear dynamic corotational finite element model for submerged pipes. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 276, 012030	0.4	1
91	Modelling of anelastic deformation in dual-phase steel for improved springback simulation. <i>Procedia Engineering</i> , 2017 , 207, 185-190		1
90	Numerical and Experimental Validation of a New Damage Initiation Criterion. <i>Journal of Physics: Conference Series</i> , 2017 , 896, 012080	0.3	2
89	Parameter reduction for the Yld2004-18p yield criterion. <i>International Journal of Material Forming</i> , 2016 , 9, 175-178	2	26

88	Interpolation of final geometry and result fields in process parameter space. <i>MATEC Web of Conferences</i> , 2016 , 80, 13006	0.3	1
87	Friction and lubrication modelling in sheet metal forming simulations of the Volvo XC90 inner door. <i>Journal of Physics: Conference Series</i> , 2016 , 734, 032090	0.3	2
86	Constitutive modeling of hot forming of austenitic stainless steel 316LN by accounting for recrystallization in the dislocation evolution. <i>Journal of Physics: Conference Series</i> , 2016 , 734, 032026	0.3	1
85	The effect of tooling deformation on process control in multistage metal forming 2016 ,		1
84	Friction and lubrication modeling in sheet metal forming simulations of a Volvo XC90 inner door. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 159, 012021	0.4	6
83	A comparison between dynamic implicit and explicit finite element simulations of the native knee joint. <i>Medical Engineering and Physics</i> , 2016 , 38, 1123-30	2.4	25
82	Determination of strain hardening parameters of tailor hardened boron steel up to high strains using inverse FEM optimization and strain field matching. <i>Journal of Materials Processing Technology</i> , 2016 , 228, 43-58	5.3	29
81	Friction surface cladding: An exploratory study of a new solid state cladding process. <i>Journal of Materials Processing Technology</i> , 2016 , 229, 769-784	5.3	16
80	Influence of ring growth rate on damage development in hot ring rolling. <i>Journal of Materials Processing Technology</i> , 2016 , 227, 268-280	5.3	32
79	On the nonlinear anelastic behaviour of AHSS. <i>Journal of Physics: Conference Series</i> , 2016 , 734, 032100	0.3	1
78	Gradient enhanced physically based plasticity: Implementation and application to a problem pertaining size effect 2016 ,		2
77	Plasticity and fracture modeling of the heat-affected zone in resistance spot welded tailor hardened boron steel. <i>Journal of Materials Processing Technology</i> , 2016 , 234, 309-322	5.3	19
76	Accurate determination of flow curves using the bulge test with optical measuring systems. <i>Journal of Materials Processing Technology</i> , 2015 , 226, 169-187	5.3	40
75	Model-based control of strip bending in mass production. <i>CIRP Annals - Manufacturing Technology</i> , 2015 , 64, 297-300	4.9	4
74	An Engineering Approach to Strain Rate and Temperature Compensation of the Flow Stress Established by the Hydraulic Bulge Test. <i>Key Engineering Materials</i> , 2015 , 651-653, 138-143	0.4	2
73	Multi-scale friction modeling for sheet metal forming: The mixed lubrication regime. <i>Tribology International</i> , 2015 , 85, 10-25	4.9	49
72	Large strain cyclic behavior of metastable austenitic stainless steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 631, 166-172	5.3	13
71	Inverse Identification of Process Variations for Thin Steel Sheet Bending. <i>Key Engineering Materials</i> , 2015 , 651-653, 1363-1368	0.4	1

70	Stretching the limits of forming processes by robust optimization: A numerical and experimental demonstrator. <i>Journal of Materials Processing Technology</i> , 2015 , 217, 345-355	5.3	6
69	Multi-scale friction modeling for sheet metal forming: The boundary lubrication regime. <i>Tribology International</i> , 2015 , 81, 112-128	4.9	61
68	Identification of Plasticity Model Parameters of the Heat-Affected Zone in Resistance Spot Welded Martensitic Boron Steel. <i>Key Engineering Materials</i> , 2015 , 639, 369-376	0.4	4
67	Physically Based Criterion for Prediction of Instability under Stretch-Bending of Sheet Metal. <i>Key Engineering Materials</i> , 2015 , 651-653, 144-149	0.4	
66	The prediction of differential hardening behaviour of steels by multi-scale crystal plasticity modelling. <i>International Journal of Plasticity</i> , 2015 , 73, 119-141	7.6	29
65	Effect of material scatter on the plastic behavior and stretchability in sheet metal forming. <i>Journal of Materials Processing Technology</i> , 2014 , 214, 238-252	5.3	34
64	Influence of Feed Rate on Damage Development in Hot Ring Rolling. <i>Procedia Engineering</i> , 2014 , 81, 292-297		7
63	A Yield Criterion Based on Mean Shear Stress. <i>Key Engineering Materials</i> , 2014 , 611-612, 3-10	0.4	0
62	Plasticity and fracture modeling of quench-hardenable boron steel with tailored properties. <i>Journal of Materials Processing Technology</i> , 2014 , 214, 1211-1227	5.3	71
61	Study on Instability and Forming Limit of Sheet Metal under Stretch-Bending. <i>Key Engineering Materials</i> , 2014 , 611-612, 84-91	0.4	2
60	Instability Prediction during Stretch Bending of AHSS Sheet Metal. <i>Key Engineering Materials</i> , 2014 , 622-623, 1145-1151	0.4	
59	Experimental characterization of microstructure development during loading path changes in bcc sheet steels. <i>Journal of Materials Science</i> , 2013 , 48, 674-689	4.3	13
58	On the effect of numerical noise in approximate optimization of forming processes using numerical simulations. <i>International Journal of Material Forming</i> , 2013 , 7, 317	2	7
57	Product defect compensation by robust optimization of a cold roll forming process. <i>Journal of Materials Processing Technology</i> , 2013 , 213, 978-986	5.3	50
56	Modelling of the austenite-martensite transformation in stainless and TRIP steels 2013 ,		3
55	Multi-stage FE simulation of hot ring rolling 2013 ,		2
54	Sequential Optimization of Strip Bending Process Using Multiquadric Radial Basis Function Surrogate Models. <i>Key Engineering Materials</i> , 2013 , 554-557, 911-918	0.4	1
53	Cladding of Advanced Al Alloys Employing Friction Stir Welding. <i>Key Engineering Materials</i> , 2013 , 554-557, 1014-1021	0.4	8

52	A Plasticity Induced Anisotropic Damage Model for Sheet Forming Processes. <i>Key Engineering Materials</i> , 2013 , 554-557, 1245-1251	0.4	1
51	Deformation Scenarios of Combined Stretching and Bending in Complex Shaped Deep Drawing Parts. <i>Key Engineering Materials</i> , 2013 , 554-557, 1252-1264	0.4	4
50	Accurate Evaluation Method for the Hydraulic Bulge Test. <i>Key Engineering Materials</i> , 2013 , 554-557, 33-40.	0.4	2
49	Material-induced anisotropic damage in DP600. <i>International Journal of Damage Mechanics</i> , 2013 , 22, 1039-1070	3	9
48	Efficient implicit simulation of incremental sheet forming. <i>International Journal for Numerical Methods in Engineering</i> , 2012 , 90, 597-612	2.4	16
47	Material Characterization at High Strain by Adapted Tensile Tests. <i>Experimental Mechanics</i> , 2012 , 52, 1195-1209	2.6	10
46	Sequential robust optimization of a V-bending process using numerical simulations. <i>Structural and Multidisciplinary Optimization</i> , 2012 , 46, 137-153	3.6	31
45	Determination of Flow Curves under Equibiaxial Stress Conditions. <i>Key Engineering Materials</i> , 2012 , 504-506, 53-58	0.4	4
44	A numerical investigation of the continuous bending under tension test. <i>Journal of Materials Processing Technology</i> , 2011 , 211, 1948-1956	5.3	21
43	Cyclic stretch-bending: Mechanics, stability and formability. <i>Journal of Materials Processing Technology</i> , 2011 , 211, 1965-1981	5.3	25
42	A comparative study on the performance of meshless approximations and their integration. <i>Computational Mechanics</i> , 2011 , 48, 121-137	4	21
41	Simulation of stretch forming with intermediate heat treatments of aircraft skins. <i>International Journal of Material Forming</i> , 2011 , 4, 129-140	2	13
40	Phenomenological modeling of anisotropy induced by evolution of the dislocation structure on the macroscopic and microscopic scale. <i>International Journal of Material Forming</i> , 2011 , 4, 141-154	2	17
39	The Stabilizing Effect of Bending-Under-Tension 2011 ,		3
38	Transformation in Austenitic Stainless Steel Sheet under Different Loading Directions. <i>Key Engineering Materials</i> , 2011 , 473, 444-451	0.4	
37	Effect of Thickness Stress in Stretch-Bending 2010 ,		3
36	Thermo-mechanical Forming of Al-Mg-Si Alloys: Modeling and Experiments 2010 ,		3
35	Optimization of forging processes using Finite Element simulations. <i>Structural and Multidisciplinary Optimization</i> , 2010 , 42, 797-810	3.6	45

34	The technology of Incremental Sheet Forming – A brief review of the history. <i>Journal of Materials Processing Technology</i> , 2010 , 210, 981-997	5.3	203
33	Contact Effects in Bending Affecting Stress and Formability. <i>International Journal of Material Forming</i> , 2010 , 3, 1159-1162	2	6
32	Influence of Punch Radius in a Nakazima Test for Mild Steel and Aluminium. <i>International Journal of Material Forming</i> , 2010 , 3, 1179-1182	2	11
31	Incremental Sheet Forming Analysed by Tensile Tests. <i>Key Engineering Materials</i> , 2009 , 410-411, 347-354	0.4	2
30	Substructuring in the implicit simulation of single point incremental sheet forming. <i>International Journal of Material Forming</i> , 2009 , 2, 181-189	2	21
29	On the performance of substructuring implicit simulation of single point incremental forming. <i>International Journal of Material Forming</i> , 2009 , 2, 559-562	2	3
28	Meshless methods and forming processes. <i>International Journal of Material Forming</i> , 2009 , 2, 585-588	2	5
27	Effect of temperature on anisotropy in forming simulation of aluminum alloys. <i>International Journal of Material Forming</i> , 2009 , 2, 387-390	2	4
26	An overview of stabilizing deformation mechanisms in incremental sheet forming. <i>Journal of Materials Processing Technology</i> , 2009 , 209, 3688-3695	5.3	187
25	Incremental forming by continuous bending under tension – An experimental investigation. <i>Journal of Materials Processing Technology</i> , 2009 , 209, 5456-5463	5.3	46
24	Warm forming simulation of AlMg sheet. <i>Journal of Materials Processing Technology</i> , 2009 , 209, 5636-5645	5.3	40
23	An optimisation strategy for industrial metal forming processes. <i>Structural and Multidisciplinary Optimization</i> , 2008 , 35, 571-586	3.6	44
22	Experimental validation of numerical sensitivities in a deep drawing simulation. <i>International Journal of Material Forming</i> , 2008 , 1, 41-44	2	1
21	Tensile tests with bending: a mechanism for incremental forming.. <i>International Journal of Material Forming</i> , 2008 , 1, 1155-1158	2	14
20	Time reduction in implicit single point incremental sheet forming simulation by refinement - derefinement. <i>International Journal of Material Forming</i> , 2008 , 1, 1167-1170	2	15
19	Influence Of The Plastic Material Behaviour On The Prediction Of Forming Limits. <i>AIP Conference Proceedings</i> , 2007 ,	0	2
18	Stable Incremental Deformation of a Strip to High Strain. <i>Key Engineering Materials</i> , 2007 , 344, 615-620	0.4	3
17	A Robust Optimisation Strategy for Metal Forming Processes. <i>AIP Conference Proceedings</i> , 2007 ,	0	3

16	A Metamodel Based Optimisation Algorithm for Metal Forming Processes 2007 , 55-72		27
15	Simulation of aluminium sheet forming at elevated temperatures. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 6691-6709	5.7	64
14	A plane stress yield function for anisotropic sheet material by interpolation of biaxial stress states. <i>International Journal of Plasticity</i> , 2006 , 22, 557-580	7.6	173
13	Do Advanced Material Models Contribute to Accuracy in Industrial Sheet Forming Simulations?. <i>Advanced Materials Research</i> , 2005 , 6-8, 71-80	0.5	1
12	Finite Element Simulation of the Stretch-Forming of Aircraft Skins. <i>AIP Conference Proceedings</i> , 2005 ,	0	3
11	Modelling of aluminium sheet forming at elevated temperatures. <i>AIP Conference Proceedings</i> , 2004 ,	0	5
10	Improvement of implicit finite element code performance in deep drawing simulations by dynamics contributions. <i>Journal of Materials Processing Technology</i> , 2003 , 134, 413-420	5.3	8
9	Efficient implicit finite element analysis of sheet forming processes. <i>International Journal for Numerical Methods in Engineering</i> , 2003 , 56, 1083-1107	2.4	7
8	Adaptive return mapping algorithms for J2 elasto-viscoplastic flow. <i>International Journal for Numerical Methods in Engineering</i> , 2001 , 51, 1283-1298	2.4	15
7	The ALE-method with triangular elements: direct convection of integration point values. <i>International Journal for Numerical Methods in Engineering</i> , 2000 , 49, 697-720	2.4	9
6	A mixed elastoplastic/rigid-plastic material model. <i>International Journal for Numerical Methods in Engineering</i> , 1999 , 46, 1421-1434	2.4	3
5	An adaptive time-stepping algorithm for quasistatic processes. <i>Communications in Numerical Methods in Engineering</i> , 1994 , 10, 837-844		6
4	Finite-Element Modeling of Deformation and Cracking in Early-Age Concrete. <i>Journal of Engineering Mechanics - ASCE</i> , 1994 , 120, 2519-2534	2.4	74
3	Strain in Shear, and Material Behaviour in Incremental Forming. <i>Key Engineering Materials</i> , 519-526	0.4	2
2	Multiscale friction model for hot sheet metal forming. <i>Friction</i> , 1	5.6	2
1	Accounting for non-normal distribution of input variables and their correlations in robust optimization. <i>Optimization and Engineering</i> , 1	2.1	0