Lars Erik Lindgren

List of Publications by Year
in descending order

79 papers	2,668 citations	279487 23 h-index	189595 50 g-index
84 all docs	84 docs citations	84 times ranked	1496 citing authors

#	ARTICLE	IF	CITATIONS
1	Coupled electromagnetic-thermal solution strategy for induction heating of ferromagnetic materials. Applied Mathematical Modelling, 2022, 111, 818-835.	2.2	7
2	Mechanical behavior and microstructure evolution during deformation of AA7075-T651. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 822, 141615.	2.6	20
3	High Strain Rate Deformation Behavior and Recrystallization of Alloy 718. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5243-5257.	1.1	6
4	History Reduction by Lumping for Time-Efficient Simulation of Additive Manufacturing. Metals, 2020, 10, 58.	1.0	15
5	Mechanism Based Flow Stress Model for Alloy 625 and Alloy 718. Materials, 2020, 13, 5620.	1.3	12
6	Electromagnetic wave-based analysis of laser–particle interactions in directed energy deposition additive manufacturing. Additive Manufacturing, 2020, 34, 101284.	1.7	17
7	A numerical model for simulating the effect of strain rate on eutectic band thickness. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 1635-1658.	1.3	0
8	Modelling additive manufacturing of superalloys. Procedia Manufacturing, 2019, 35, 252-258.	1.9	1
9	Modeling and simulation of weld solidification cracking part II. Welding in the World, Le Soudage Dans Le Monde, 2019, 63, 1503-1519.	1.3	8
10	Modeling of thermal stresses in low alloy steels. Journal of Thermal Stresses, 2019, 42, 725-743.	1.1	7
11	Thermal stresses and computational welding mechanics. Journal of Thermal Stresses, 2019, 42, 107-121.	1.1	7
12	Thermal simulation and phase modeling of bulk metallic glass in the powder bed fusion process. Additive Manufacturing, 2019, 27, 345-352.	1.7	17
13	Simulation of Ti-6Al-4V Additive Manufacturing Using Coupled Physically Based Flow Stress and Metallurgical Model. Materials, 2019, 12, 3844.	1.3	17
14	Elastic properties of ferrite and austenite in low alloy steels versus temperature and alloying. Materialia, 2019, 5, 100193.	1.3	15
15	Heat transfer in cold rolling process of AA8015 alloy: a case study of 2-D FE simulation of coupled thermo-mechanical modeling. International Journal of Advanced Manufacturing Technology, 2019, 100, 2617-2627.	1.5	2
16	Modelling of induction hardening in low alloy steels. Finite Elements in Analysis and Design, 2018, 144, 61-75.	1.7	31
17	Optimization and validation of a dislocation density based constitutive model for as-cast Mg-9%Al-1%Zn. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 710, 17-26.	2.6	17
18	Work hardening during alternating load directions of 316L SS. Procedia Manufacturing, 2018, 15, 1777-1784.	1.9	0

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19	Modelling of the Influence of Prior Deformation of Austenite on the Martensite Formation in a Low-Alloyed Carbon Steel. Materials Science Forum, 2018, 941, 95-99.	0.3	0
20	Efficiency and Accuracy in Thermal Simulation of Powder Bed Fusion of Bulk Metallic Glass. Jom, 2018, 70, 1598-1603.	0.9	29
21	Approaches in computational welding mechanics applied to additive manufacturing: Review and outlook. Comptes Rendus - Mecanique, 2018, 346, 1033-1042.	2.1	19
22	Integrated Design of Material, Manufacturing, Product and Performance. Procedia Manufacturing, 2017, 7, 53-58.	1.9	0
23	A dislocation density based constitutive model for as-cast Al-Si alloys: Effect of temperature and microstructure. International Journal of Mechanical Sciences, 2017, 121, 164-170.	3.6	30
24	Improved and simplified dislocation density based plasticity model for AISI 316 L. Mechanics of Materials, 2017, 108, 68-76.	1.7	27
25	Finite Element Simulation to Support Sustainable Production by Additive Manufacturing. Procedia Manufacturing, 2017, 7, 127-130.	1.9	12
26	The Simulation of Precipitation Evolutions and Mechanical Properties in Friction Stir Welding with Post-Weld Heat Treatments. Journal of Materials Engineering and Performance, 2017, 26, 5731-5740.	1.2	18
27	Finite Element Analysis of cold pilgering using elastic roll dies. Procedia Engineering, 2017, 207, 2370-2375.	1.2	7
28	Non-Local Modelling of Strain Softening in Machining Simulations. IOP Conference Series: Materials Science and Engineering, 2017, 225, 012053.	0.3	0
29	Finite element modeling of tube deformation during cold pilgering. MATEC Web of Conferences, 2016, 80, 15004.	0.1	2
30	Towards predictive simulations of machining. Comptes Rendus - Mecanique, 2016, 344, 284-295.	2.1	8
31	Simulation of additive manufacturing using coupled constitutive and microstructure models. Additive Manufacturing, 2016, 12, 144-158.	1.7	98
32	Non-local damage models in manufacturing simulations. European Journal of Mechanics, A/Solids, 2015, 49, 548-560.	2.1	8
33	Modelling flow stress of AISI 316L at high strain rates. Mechanics of Materials, 2015, 91, 194-207.	1.7	20
34	Implicit finite element formulation of multiresolution continuum theory. Computer Methods in Applied Mechanics and Engineering, 2015, 293, 114-130.	3.4	2
35	Welding Stresses. , 2014, , 6594-6600.		1
36	Flow stress model for IN718 accounting for evolution of strengthening precipitates during thermal treatment. Computational Materials Science, 2014, 82, 531-539.	1.4	80

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37	Dislocation density based model for plastic deformation and globularization of Ti-6Al-4V. International Journal of Plasticity, 2013, 50, 94-108.	4.1	158
38	Thermo-Mechanics and Microstructure Evolution in Manufacturing Simulations. Journal of Thermal Stresses, 2013, 36, 564-588.	1.1	7
39	Supporting engineering decisions through contextual, model-oriented communication and knowledge-based engineering in simulation-driven product development: an automotive case study. Journal of Engineering Design, 2013, 24, 45-63.	1.1	7
40	Modelling high strain rate phenomena in metal cutting simulation. Modelling and Simulation in Materials Science and Engineering, 2012, 20, 085006.	0.8	23
41	Simulation of manufacturing chain of a titanium aerospace component with experimental validation. Finite Elements in Analysis and Design, 2012, 51, 10-21.	1.7	22
42	Process Simulation of Single and Dual Frequency Induction Surface Hardening Considering Magnetic Nonlinearity. Materials Performance and Characterization, 2012, 1, 104374.	0.2	9
43	Process Simulation of Single and Dual Frequency Induction Surface Hardening Considering Magnetic Nonlinearity. Materials Performance and Characterization, 2012, 1, MPC-2012-0007.	0.2	0
44	Modelling of metal deposition. Finite Elements in Analysis and Design, 2011, 47, 1169-1177.	1.7	104
45	Understanding welding stress and distortion using computational welding mechanics. , 2011, , 22-78.		3
46	Simulation of mechanical cutting using a physical based material model. International Journal of Material Forming, 2010, 3, 511-514.	0.9	10
47	A multiresolution continuum simulation of the ductile fracture process. Journal of the Mechanics and Physics of Solids, 2010, 58, 1681-1700.	2.3	60
48	Simulation of hydroforming of steel tube made of metastable stainless steel. International Journal of Plasticity, 2010, 26, 1576-1590.	4.1	16
49	Simulation of metal cutting using a physically based plasticity model. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 075005.	0.8	39
50	Dislocations, vacancies and solute diffusion in physical based plasticity model for AISI 316L. Mechanics of Materials, 2008, 40, 907-919.	1.7	119
51	Modelling and Simulation of Machining Processes. Archives of Computational Methods in Engineering, 2007, 14, 173-204.	6.0	76
52	Computational welding mechanics. , 2007, , .		24
53	Numerical modelling of welding. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 6710-6736.	3.4	215
54	Measurement and modeling of residual stress in a welded Haynes® 25 cylinder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 399, 49-57.	2.6	8

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55	Models for Forming Simulations of Metastable Austenitic Stainless Steel. AIP Conference Proceedings, 2004, , .	0.3	3
56	Simulating a chain of manufacturing processes using a geometry-based finite element code with adaptive meshing. Finite Elements in Analysis and Design, 2004, 40, 511-528.	1.7	14
57	Nonlinear Finite Element Analysis and Applications to Welded Structures. , 2003, , 255-320.		6
58	Thermo-mechanical FE-analysis of residual stresses and stress redistribution in butt welding of a copper canister for spent nuclear fuel. Nuclear Engineering and Design, 2002, 212, 401-408.	0.8	2
59	FINITE ELEMENT MODELING AND SIMULATION OF WELDING PART 1: INCREASED COMPLEXITY. Journal of Thermal Stresses, 2001, 24, 141-192.	1.1	313
60	FINITE ELEMENT MODELING AND SIMULATION OF WELDING. PART 2: IMPROVED MATERIAL MODELING. Journal of Thermal Stresses, 2001, 24, 195-231.	1.1	254
61	FINITE ELEMENT MODELING AND SIMULATION OF WELDING. PART 3: EFFICIENCY AND INTEGRATION. Journal of Thermal Stresses, 2001, 24, 305-334.	1.1	138
62	Modelling of addition of filler material in large deformation analysis of multipass welding. Communications in Numerical Methods in Engineering, 2001, 17, 647-657.	1.3	59
63	Smoothing and adaptive remeshing schemes for graded element. Communications in Numerical Methods in Engineering, 2001, 17, 1-17.	1.3	13
64	Simulation of Multipass Welding With Simultaneous Computation of Material Properties. Journal of Engineering Materials and Technology, Transactions of the ASME, 2001, 123, 106-111.	0.8	36
65	Simulation of multipass welding of a thick plate. International Journal for Numerical Methods in Engineering, 1999, 44, 1301-1316.	1.5	120
66	The effective stress function algorithm for pressure-dependent plasticity applied to hot isostatic pressing. International Journal for Numerical Methods in Engineering, 1998, 43, 587-606.	1.5	10
67	Automatic remeshing for three-dimensional finite element simulation of welding. Computer Methods in Applied Mechanics and Engineering, 1997, 147, 401-409.	3.4	68
68	The use of simulations and the need of experiments in material processing. , 1995, , 149-161.		0
69	The wedge rolling test. Journal of Materials Processing Technology, 1994, 42, 227-238.	3.1	4
70	Efficient three-dimensional model of rolling using an explicit finite-element formulation. Communications in Numerical Methods in Engineering, 1993, 9, 613-627.	1.3	8
71	Holographic interferometry measurements of transient bending waves in tubes and rings. Experimental Mechanics, 1993, 33, 308-313.	1.1	12
72	Explicit versus implicit finite element formulation in simulation of rolling. Journal of Materials Processing Technology, 1990, 24, 85-94.	3.1	26

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73	Transient bending waves in anisotropic plates studied by hologram interferometry. Experimental Mechanics, 1989, 29, 409-413.	1.1	26
74	Computer simulation of temperature fields in mechanised plasma-arc welding. Journal of Mechanical Working Technology, 1989, 19, 23-33.	0.1	6
75	Deformations and stresses in welding of shell structures. International Journal for Numerical Methods in Engineering, 1988, 25, 635-655.	1.5	72
76	Improvements of the program 'a versatile two-dimensional mesh generator with automatic bandwidth reduction'. Computers and Structures, 1987, 25, 637-638.	2.4	0
77	Temperature fields in simulation of butt-welding of large plates. Communications in Applied Numerical Methods, 1986, 2, 155-164.	0.5	8
78	Dislocation Density Based Plasticity Model Coupled with Precipitate Model. Key Engineering Materials, 0, 535-536, 125-128.	0.4	0
79	Challenges in Finite Element Simulations of Chain of Manufacturing Processes. Materials Science Forum, 0, 762, 349-353.	0.3	0