Zdenko TonkoviÄ

List of Publications by Year
in descending order

56 papers	758 citations	623734 14 h-index	526287 27 g-index
58 all docs	58 docs citations	58 times ranked	490 citing authors

#	Article	IF	Citations
1	Numerical analysis and experimental investigation of welding residual stresses and distortions in a T-joint fillet weld. Materials & Design, 2014, 53, 1052-1063.	5.1	132
2	Microstructure influence on fatigue behaviour of nodular cast iron. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 88-99.	5.6	67
3	A residual control staggered solution scheme for the phase-field modeling of brittle fracture. Engineering Fracture Mechanics, 2019, 205, 370-386.	4.3	62
4	A general phase-field model for fatigue failure in brittle and ductile solids. Computational Mechanics, 2021, 67, 1431-1452.	4.0	62
5	Numerical simulation of a welding process using a prescribed temperature approach. Journal of Constructional Steel Research, 2018, 145, 49-57.	3.9	47
6	Comparison of infrared and 3D digital image correlation techniques applied for mechanical testing of materials. Infrared Physics and Technology, 2015, 73, 166-174.	2.9	36
7	A second-order two-scale homogenization procedure using $$C^{1}$$ C 1 macrolevel discretization. Computational Mechanics, 2014, 54, 425-441.	4.0	26
8	Numerical calculation and experimental measurement of temperatures and welding residual stresses in a thick-walled T-joint structure. Journal of Thermal Analysis and Calorimetry, 2020, 141, 313-322.	3.6	26
9	An engineering approach for a T-joint fillet welding simulation using simplified material properties. Ocean Engineering, 2016, 128, 13-21.	4.3	25
10	On the Calculation of Stress Intensity Factors and J-Integrals Using the Submodeling Technique. Journal of Pressure Vessel Technology, Transactions of the ASME, 2010, 132, .	0.6	21
11	Two-scale computational approach using strain gradient theory at microlevel. International Journal of Mechanical Sciences, 2017, 126, 67-78.	6.7	20
12	Numerical prediction and experimental validation of temperature and residual stress distributions in buriedâ€arc welded thick plates. International Journal of Energy Research, 2019, 43, 3590-3600.	4.5	19
13	Crack propagation prediction in heterogeneous microstructure using an efficient phase-field algorithm. Theoretical and Applied Fracture Mechanics, 2019, 100, 289-297.	4.7	18
14	Influence of flow stress choice on the plastic collapse estimation of axially cracked steam generator tubes. Nuclear Engineering and Design, 2008, 238, 1762-1770.	1.7	15
15	Large strain, two-scale computational approach using <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msup><mml:mrow><mml:mi>C</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msup> continuity finite element employing a second gradient theory. Computer Methods in Applied Mechanics and Engineering, 2016, 298, 303-324.	6.6	15
16	Numerical simulation of welding distortions in large structures with a simplified engineering approach. Open Physics, 2019, 17, 719-730.	1.7	14
17	Damage modeling employing strain gradient continuum theory. International Journal of Solids and Structures, 2017, 120, 171-185.	2.7	13
18	Numerical analysis of residual stresses in a T-joint fillet weld using a submodeling technique. FME Transactions, 2019, 47, 183-189.	1.4	13

#	ARTICLE	IF	CITATIONS
19	A simplified engineering method for a T-joint welding simulation. Thermal Science, 2018, 22, 867-873.	1.1	12
20	Microcrack propagation under monotonic and cyclic loading conditions using generalised phase-field formulation. Engineering Fracture Mechanics, 2021, 255, 107973.	4.3	10
21	Computational model for bending fatigue prediction of surface hardened spur gears based on the multilayer method. International Journal of Fatigue, 2022, 161, 106892.	5.7	10
22	Numerical Simulation and Experimental Measurement of Residual Stresses in a Thick-Walled Buried-Arc Welded Pipe Structure. Metals, 2022, 12, 1102.	2.3	10
23	On nonisothermal elastoplastic analysis of shell components employing realistic hardening responses. International Journal of Solids and Structures, 2001, 38, 5019-5039.	2.7	9
24	C1 CONTINUITY FINITE ELEMENT FORMULATION IN SECOND-ORDER COMPUTATIONAL HOMOGENIZATION SCHEME. Journal of Multiscale Modeling, 2012, 04, 1250013.	1.1	9
25	Validation of Numerical Model by Means of Digital Image Correlation and Thermography. Procedia Engineering, 2015, 101, 450-458.	1.2	8
26	Numerical Simulation and Experimental Investigation of Temperature and Residual Stress Distributions in a Circular Patch Welded Structure. Energies, 2020, 13, 5423.	3.1	8
27	A new formulation of numerical algorithms for modelling of elastoplastic cyclic response of shell-like structures. Computers and Structures, 2000, 78, 161-168.	4.4	6
28	Microplane Model for Steel and Application on Static and Dynamic Fracture. Journal of Engineering Mechanics - ASCE, 2016, 142, .	2.9	4
29	Comparison of SIF solutions obtained by XFEM and conventional FEM for cracks in complex geometries like valve body. Procedia Structural Integrity, 2018, 13, 2109-2113.	0.8	4
30	Ductile damage modelling of heterogeneous materials using a two-scale computational approach. Computer Methods in Applied Mechanics and Engineering, 2019, 355, 113-134.	6.6	4
31	A Multiscale Method for Damage Analysis of Quasi-Brittle Heterogeneous Materials. CMES - Computer Modeling in Engineering and Sciences, 2019, 120, 123-156.	1.1	4
32	Numerical Calculation of Stress Intensity Factors for Semi-Elliptical Surface Cracks in Buried-Arc Welded Thick Plates. Metals, 2021, 11, 1809.	2.3	4
33	Modelling of Nonlinear Creep and Recovery Behaviour of Cortical Bone. Key Engineering Materials, 0, 488-489, 186-189.	0.4	3
34	DAMAGE MODELING USING STRAIN GRADIENT BASED FINITE ELEMENT FORMULATION. , 2016, , .		3
35	Numerical Modelling of Viscoelastic/Damage Behaviour of Cortical Bone. Key Engineering Materials, 0, 417-418, 273-276.	0.4	2
36	Experimental and Numerical Investigation of Fatigue Behaviour of Nodular Cast Iron. Key Engineering Materials, 0, 488-489, 182-185.	0.4	2

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37	Second-Order Computational Homogenization Scheme Preserving Microlevel C¹ Continuity. Key Engineering Materials, 2014, 627, 381-384.	0.4	2
38	A Phase Field Staggered Algorithm for Fracture Modeling in Heterogeneous Microstructure. Key Engineering Materials, 2018, 774, 632-637.	0.4	2
39	Numerical simulation of initiation and crack growth on cast valve body. Engineering Failure Analysis, 2020, 117, 104793.	4.0	2
40	Phase-Field Modeling of Fused Silica Cone-Crack Vickers Indentation. Nanomaterials, 2022, 12, 2356.	4.1	2
41	On Numerical Analysis of Creep Fracture Behaviour of Medium Density Polyethylene. Key Engineering Materials, 0, 417-418, 233-236.	0.4	1
42	Modelling of Cyclic Plasticity and Crack Propagation. Key Engineering Materials, 0, 452-453, 825-828.	0.4	1
43	A Constitutive Model for Bovine Cortical Bone under Cyclic Creep-Recovery Loading. Key Engineering Materials, 0, 577-578, 649-652.	0.4	1
44	Boundary Conditions in a Multiscale Homogenization Procedure. Key Engineering Materials, 0, 577-578, 297-300.	0.4	1
45	Second-Order Computational Homogenization Approach Using Higher-Order Gradients at Microlevel. Key Engineering Materials, 0, 665, 181-184.	0.4	1
46	Experimental and numerical investigation of cyclic creep and recovery behavior of bovine cortical bone. Mechanics of Materials, 2020, 146, 103407.	3.2	1
47	An inverse approach for load identification of cracked wind turbine components. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2023, 45, 962-984.	2.3	1
48	Numerical modeling of atomistic-to-continuum coupling based on bridging domain method. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 539-540.	0.2	0
49	Nodular Cast Iron â€“ Fatigue Crack Measurement and Simulation. Key Engineering Materials, 0, 577-578, 473-476.	0.4	0
50	Cyclic Creep and Recovery Behaviour of Glass Fibre Reinforced Epoxy Composite. Key Engineering Materials, 0, 577-578, 657-660.	0.4	0
51	The Creep and Fracture Behaviour of the Polyethylene PE100. Key Engineering Materials, 0, 577-578, 653-656.	0.4	0
52	Measure of Nonlocal Response in Multiscale Gradient Modeling. Key Engineering Materials, 2016, 713, 297-300.	0.4	0
53	On the Scale-Transition in Multiscale Modeling of Ductile Damage. Key Engineering Materials, 2017, 754, 226-229.	0.4	0
54	On Ductile Damage Modelling of Heterogeneous Material Using Second-Order Homogenization Approach. CMES - Computer Modeling in Engineering and Sciences, 2021, 126, 915-934.	1.1	0

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55	Modeling of Material Deformation Responses Using Gradient Elasticity Theory. Lecture Notes in Applied and Computational Mechanics, 2018, , 257-275.	2.2	0
56	Adaptive Phase-Field Modeling of Brittle Fracture. Lecture Notes in Civil Engineering, 2022, , 145-161.	0.4	0