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	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
2	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
3	Adaptive Phase-Field Modeling of Brittle Fracture. Lecture Notes in Civil Engineering, 2022, , 145-161.	0.4	0
4	Numerical Simulation and Experimental Measurement of Residual Stresses in a Thick-Walled Buried-Arc Welded Pipe Structure. Metals, 2022, 12, 1102.	2.3	10
5	Phase-Field Modeling of Fused Silica Cone-Crack Vickers Indentation. Nanomaterials, 2022, 12, 2356.	4.1	2
6	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
7	A general phase-field model for fatigue failure in brittle and ductile solids. Computational Mechanics, 2021, 67, 1431-1452.	4.0	62
8	Microcrack propagation under monotonic and cyclic loading conditions using generalised phase-field formulation. Engineering Fracture Mechanics, 2021, 255, 107973.	4.3	10
9	Numerical Calculation of Stress Intensity Factors for Semi-Elliptical Surface Cracks in Buried-Arc Welded Thick Plates. Metals, 2021, 11, 1809.	2.3	4
10	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
11	Numerical simulation of initiation and crack growth on cast valve body. Engineering Failure Analysis, 2020, 117, 104793.	4.0	2
12	Numerical Simulation and Experimental Investigation of Temperature and Residual Stress Distributions in a Circular Patch Welded Structure. Energies, 2020, 13, 5423.	3.1	8
13	Experimental and numerical investigation of cyclic creep and recovery behavior of bovine cortical bone. Mechanics of Materials, 2020, 146, 103407.	3.2	1
14	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
15	Crack propagation prediction in heterogeneous microstructure using an efficient phase-field algorithm. Theoretical and Applied Fracture Mechanics, 2019, 100, 289-297.	4.7	18
16	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
17	A residual control staggered solution scheme for the phase-field modeling of brittle fracture. Engineering Fracture Mechanics, 2019, 205, 370-386.	4.3	62
18	Numerical simulation of welding distortions in large structures with a simplified engineering approach. Open Physics, 2019, 17, 719-730.	1.7	14

#	ARTICLE	IF	CITATIONS
19	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
20	Numerical analysis of residual stresses in a T-joint fillet weld using a submodeling technique. FME Transactions, 2019, 47, 183-189.	1.4	13
21	Numerical simulation of a welding process using a prescribed temperature approach. Journal of Constructional Steel Research, 2018, 145, 49-57.	3.9	47
22	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
23	A Phase Field Staggered Algorithm for Fracture Modeling in Heterogeneous Microstructure. Key Engineering Materials, 2018, 774, 632-637.	0.4	2
24	A simplified engineering method for a T-joint welding simulation. Thermal Science, 2018, 22, 867-873.	1.1	12
25	Modeling of Material Deformation Responses Using Gradient Elasticity Theory. Lecture Notes in Applied and Computational Mechanics, 2018, , 257-275.	2.2	0
26	Damage modeling employing strain gradient continuum theory. International Journal of Solids and Structures, 2017, 120, 171-185.	2.7	13
27	Two-scale computational approach using strain gradient theory at microlevel. International Journal of Mechanical Sciences, 2017, 126, 67-78.	6.7	20
28	On the Scale-Transition in Multiscale Modeling of Ductile Damage. Key Engineering Materials, 2017, 754, 226-229.	0.4	0
29	Microplane Model for Steel and Application on Static and Dynamic Fracture. Journal of Engineering Mechanics - ASCE, 2016, 142, .	2.9	4
30	An engineering approach for a T-joint fillet welding simulation using simplified material properties. Ocean Engineering, 2016, 128, 13-21.	4.3	25
31	Measure of Nonlocal Response in Multiscale Gradient Modeling. Key Engineering Materials, 2016, 713, 297-300.	0.4	0
32	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></m continuity finite element employing a second gradient theory. Computer Methods in Applied Mechanics and Engineering, 2016, 298, 303-324.	6.6	15
33	DAMAGE MODELING USING STRAIN GRADIENT BASED FINITE ELEMENT FORMULATION. , 2016, , .		3
34	Validation of Numerical Model by Means of Digital Image Correlation and Thermography. Procedia Engineering, 2015, 101, 450-458.	1.2	8
35	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
36	Second-Order Computational Homogenization Scheme Preserving Microlevel C¹ Continuity. Key Engineering Materials, 2014, 627, 381-384.	0.4	2

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37	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
38	A second-order two-scale homogenization procedure using $$C^{1}$$ C 1 macrolevel discretization. Computational Mechanics, 2014, 54, 425-441.	4.0	26
39	C1 CONTINUITY FINITE ELEMENT FORMULATION IN SECOND-ORDER COMPUTATIONAL HOMOGENIZATION SCHEME. Journal of Multiscale Modeling, 2012, 04, 1250013.	1.1	9
40	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
41	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
42	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
43	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
44	On nonisothermal elastoplastic analysis of shell components employing realistic hardening responses. International Journal of Solids and Structures, 2001, 38, 5019-5039.	2.7	9
45	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
46	Numerical Modelling of Viscoelastic/Damage Behaviour of Cortical Bone. Key Engineering Materials, 0, 417-418, 273-276.	0.4	2
47	On Numerical Analysis of Creep Fracture Behaviour of Medium Density Polyethylene. Key Engineering Materials, 0, 417-418, 233-236.	0.4	1
48	Modelling of Cyclic Plasticity and Crack Propagation. Key Engineering Materials, 0, 452-453, 825-828.	0.4	1
49	Experimental and Numerical Investigation of Fatigue Behaviour of Nodular Cast Iron. Key Engineering Materials, 0, 488-489, 182-185.	0.4	2
50	Modelling of Nonlinear Creep and Recovery Behaviour of Cortical Bone. Key Engineering Materials, 0, 488-489, 186-189.	0.4	3
51	Nodular Cast Iron â€“ Fatigue Crack Measurement and Simulation. Key Engineering Materials, 0, 577-578, 473-476.	0.4	0
52	Cyclic Creep and Recovery Behaviour of Glass Fibre Reinforced Epoxy Composite. Key Engineering Materials, 0, 577-578, 657-660.	0.4	0
53	A Constitutive Model for Bovine Cortical Bone under Cyclic Creep-Recovery Loading. Key Engineering Materials, 0, 577-578, 649-652.	0.4	1
54	Boundary Conditions in a Multiscale Homogenization Procedure. Key Engineering Materials, 0, 577-578, 297-300.	0.4	1

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55	The Creep and Fracture Behaviour of the Polyethylene PE100. Key Engineering Materials, 0, 577-578, 653-656.	0.4	0
56	Second-Order Computational Homogenization Approach Using Higher-Order Gradients at Microlevel. Key Engineering Materials, 0, 665, 181-184.	0.4	1