Sergio Turteltaub

List of Publications by Year
in descending order

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48	1,446	331670 21	330143 37
papers	citations	h-index	g-index

48	48	48	997
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Elucidating the effect of cohesive zone length in fracture simulations of particulate composites. Engineering Fracture Mechanics, 2022, , 108431.	4.3	0
2	Thermal cyclic behavior and lifetime prediction of self-healing thermal barrier coatings. International Journal of Solids and Structures, 2021, 222-223, 111034.	2.7	4
3	An enhanced curvature-constrained design method for manufacturable variable stiffness composite laminates. Computers and Structures, 2020, 238, 106284.	4.4	14
4	Energetically-consistent multiscale analysis of fracture in composites materials. European Journal of Mechanics, A/Solids, 2020, 84, 104079.	3.7	7
5	Computational investigation of porosity effects on fracture behavior of thermal barrier coatings. Ceramics International, 2019, 45, 20518-20527.	4.8	19
6	Multiscale modeling of the effect of sub-ply voids on the failure of composite materials. International Journal of Solids and Structures, 2019, 165, 63-74.	2.7	17
7	Numerical Investigation into the Effect of Splats and Pores on the Thermal Fracture of Air Plasma-Sprayed Thermal Barrier Coatings. Journal of Thermal Spray Technology, 2019, 28, 1881-1892.	3.1	19
8	A micromechanical fracture analysis to investigate the effect of healing particles on the overall mechanical response of a selfâ€healing particulate composite. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 533-545.	3.4	9
9	Determination of fracture strength and fracture energy of (metallo-) ceramics by a wedge loading methodology and corresponding cohesive zone-based finite element analysis. Engineering Fracture Mechanics, 2018, 196, 56-70.	4.3	7
10	A cohesive-zone crack healing model for self-healing materials. International Journal of Solids and Structures, 2018, 134, 249-263.	2.7	48
11	Residual-Based Variational Multiscale Modeling in a Discontinuous Galerkin Framework. Multiscale Modeling and Simulation, 2018, 16, 1333-1364.	1.6	5
12	Modelling the fracture behaviour of thermal barrier coatings containing healing particles. Materials and Design, 2018, 157, 75-86.	7.0	16
13	A discontinuous Galerkin residualâ€based variational multiscale method for modeling subgridâ€scale behavior of the viscousÂBurgersÂequation. International Journal for Numerical Methods in Fluids, 2018, 88, 217-238.	1.6	4
14	Multiscale analysis of mixed-mode fracture and effective traction-separation relations for composite materials. Journal of the Mechanics and Physics of Solids, 2018, 117, 88-109.	4.8	17
15	Shape optimization and optimal control for transient heat conduction problems using an isogeometric approach. Computers and Structures, 2017, 185, 59-74.	4.4	35
16	Normalization approaches for the descent search direction in isogeometric shape optimization. CAD Computer Aided Design, 2017, 82, 68-78.	2.7	19
17	Thermomechanical discrete dislocationâ€“transformation model of single-crystal shape memory alloy. Mechanics of Materials, 2016, 97, 1-18.	3.2	8
18	Isogeometric shape optimization for quasi-static processes. International Journal for Numerical Methods in Engineering, 2015, 104, 347-371.	2.8	24

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19	Generalized grain cluster method for multiscale response of multiphase materials. Computational Mechanics, 2015, 56, 193-219.	4.0	5
20	Cohesive-zone modelling of crack nucleation and propagation in particulate composites. Engineering Fracture Mechanics, 2015, 149, 170-190.	4.3	62
21	Analysis of banded microstructures in multiphase steels assisted by transformation-induced plasticity. Computational Materials Science, 2014, 84, 339-349.	3.0	21
22	Coupled thermomechanical analysis of transformation-induced plasticity in multiphase steels. Mechanics of Materials, 2012, 53, 1-14.	3.2	26
23	Parametric study of multiphase TRIP steels undergoing cyclic loading. Computational Materials Science, 2011, 50, 1490-1498.	3.0	4
24	Oxide growth and damage evolution in thermal barrier coatings. Engineering Fracture Mechanics, 2011, 78, 2139-2152.	4.3	78
25	Analysis of banded morphology in multiphase steels based on a discrete dislocationâ€“transformation model. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 074006.	2.0	5
26	Analysis of grain size effects on transformation-induced plasticity based on a discrete dislocationâ€“transformation model. Journal of the Mechanics and Physics of Solids, 2010, 58, 1863-1878.	4.8	20
27	A Micromechanical Study of the Deformation Behavior of TRIPâ€Assisted Multiphase Steels as a Function of the Microstructural Parameters of the Retained Austenite. Advanced Engineering Materials, 2009, 11, 153-157.	3.5	9
28	Effect of austenitic crystal orientation in a multiphase steel analyzed by a discrete dislocation-transformation model. International Journal of Material Forming, 2009, 2, 435-438.	2.0	0
29	Microcrack nucleation in thermal barrier coating systems. Engineering Fracture Mechanics, 2009, 76, 813-825.	4.3	51
30	Damage growth triggered by interface irregularities in thermal barrier coatings. Acta Materialia, 2009, 57, 2624-2630.	7.9	88
31	Crystallographically based model for transformation-induced plasticity in multiphase carbon steels. Continuum Mechanics and Thermodynamics, 2008, 19, 399-422.	2.2	65
32	Transformation-induced plasticity in multiphase steels subjected to thermomechanical loading. Philosophical Magazine, 2008, 88, 3369-3387.	1.6	16
33	Micromechanical predictions of TRIP steel behavior as a function of microstructural parameters. Computational Materials Science, 2007, 41, 107-116.	3.0	43
34	Numerical modelling of transformation-induced damage and plasticity in metals. Modelling and Simulation in Materials Science and Engineering, 2007, 15, S147-S166.	2.0	16
35	A multiscale thermomechanical model for cubic to tetragonal martensitic phase transformations. International Journal of Solids and Structures, 2006, 43, 4509-4545.	2.7	96
36	Grain size effects in multiphase steels assisted by transformation-induced plasticity. International Journal of Solids and Structures, 2006, 43, 7322-7336.	2.7	68

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37	A three-dimensional nonlinear finite element analysis of the mechanical behavior of tissue engineered intervertebral discs under complex loads. Biomaterials, 2006, 27, 377-387.	11.4	44
38	Modelling of the effects of grain orientation on transformation-induced plasticity in multiphase carbon steels. Modelling and Simulation in Materials Science and Engineering, 2006, 14, 617-636.	2.0	59
39	Transformation-induced plasticity in ferrous alloys. Journal of the Mechanics and Physics of Solids, 2005, 53, 1747-1788.	4.8	136
40	Computational modelling of plasticity induced by martensitic phase transformations. International Journal for Numerical Methods in Engineering, 2005, 63, 1655-1693.	2.8	66
41	Optimal non-homogeneous composites for dynamic loading. Structural and Multidisciplinary Optimization, 2005, 30, 101-112.	3.5	31
42	Integral representations in elastostatics and their application to an alternative boundary element method. International Journal for Numerical Methods in Engineering, 2004, 60, 1339-1359.	2.8	1
43	Functionally graded materials for prescribed field evolution. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 2283-2296.	6.6	41
44	Optimal control and optimization of functionally graded materials for thermomechanical processes. International Journal of Solids and Structures, 2002, 39, 3175-3197.	2.7	47
45	Optimal material properties for transient problems. Structural and Multidisciplinary Optimization, 2001, 22, 157-166.	3.5	36
46	Optimal distribution of material properties for an elastic continuum with structure-dependent body force. International Journal of Solids and Structures, 1999, 36, 4587-4608.	2.7	26
47	Adiabatic Phase Boundary Propagation in a Theromoelastic Solid. Mathematics and Mechanics of Solids, 1997, 2, 117-142.	2.4	2
48	Viscosity of Strain Gradient Effects on the Kinetics of Propagating Phase Boundaries in Solids. Journal of Elasticity, 1997, 46, 53-90.	1.9	12