Samuel Forest

List of Publications by Year in Descending Order

242 papers	8,917 citations	51 h-index	86 g-index
260 ext. papers	9,962 ext. citations	3 avg, IF	6.59 L-index

#	Paper	IF	Citations
242	Multiscale analysis of crystalline defect formation in rapid solidification of pure aluminium and aluminium-copper alloys.. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2022**, 380, 20200319	3	2
241	Micromorphic crystal plasticity approach to damage regularization and size effects in martensitic steels. *International Journal of Plasticity*, **2022**, 151, 103187	7.6	2
240	A general boundary layer corrector for the asymptotic homogenization of elastic linear composite structures. *Composite Structures*, **2022**, 285, 115091	5.3	1
239	Influence of grain size on the high-temperature creep behaviour of M5Framatome1 zirconium alloy under vacuum. *Journal of Nuclear Materials*, **2022**, 560, 153503	3.3	1
238	Crystal plasticity and damage at cracks and notches in nickel-base single-crystal superalloys **2022**, 457-469		
237	Adiabatic shear banding in FCC metallic single and poly-crystals using a micromorphic crystal plasticity approach. *Mechanics of Materials*, **2022**, 104288	3.3	
236	Modeling size effects in microwire torsion: A comparison between a Lagrange multiplier-based and a CurlFp gradient crystal plasticity model. *European Journal of Mechanics, A/Solids*, **2022**, 94, 104550	3.7	0
235	Strain localization analysis in materials containing randomly distributed voids: Competition between extension and shear failure modes. *Journal of the Mechanics and Physics of Solids*, **2022**, 104933	5	0
234	Dislocation density in cellular rapid solidification using phase field modeling and crystal plasticity. *International Journal of Plasticity*, **2021**, 103139	7.6	2
233	A finite element implementation of the stress gradient theory. *Meccanica*, **2021**, 56, 1109-1128	2.1	2
232	Experimental and Computational Approach to Fatigue Behavior of Polycrystalline Tantalum. *Metals* , **2021**, 11, 416	2.3	1
231	FFT-based simulations of slip and kink bands formation in 3D polycrystals: Influence of strain gradient crystal plasticity. *Journal of the Mechanics and Physics of Solids*, **2021**, 149, 104295	5	14
230	Phase field model for the martensitic transformation: comparison of the Voigt/Taylor and Khachaturyan approach. *Continuum Mechanics and Thermodynamics*, **2021**, 33, 2075-2094	3.5	
229	Finite element simulation of the Portevin□e Chatelier effect in highly reinforced metal matrix composites. *Philosophical Magazine*, **2021**, 101, 1471-1489	1.6	1
228	Loss of ellipticity analysis in non-smooth plasticity. *International Journal of Solids and Structures*, **2021**, 222-223, 111010	3.1	
227	Effect of L□ders and Portevin□e Chatelier localization bands on plasticity and fracture of notched steel specimens studied by DIC and FE simulations. *International Journal of Plasticity*, **2021**, 136, 102880	7.6	10
226	Ductile fracture of materials with randomly distributed voids. *International Journal of Fracture*, **2021**, 230, 193	2.3	3

225	Splitting of dissolving precipitates during plastic shear: A phase field study. *Comptes Rendus Physique*, **2021**, 22, 1-18	1.4	1
224	A strain gradient plasticity model of porous single crystal ductile fracture. *Journal of the Mechanics and Physics of Solids*, **2021**, 156, 104606	5	7
223	Scalar-based strain gradient plasticity theory to model size-dependent kinematic hardening effects. *Continuum Mechanics and Thermodynamics*, **2021**, 33, 1223-1245	3.5	2
222	Continuum thermomechanics of nonlinear micromorphic, strain and stress gradient media. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2020**, 378, 20190169	3	5
221	Hyper-reduced direct numerical simulation of voids in welded joints via image-based modeling. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 2581-2599	2.4	3
220	Discrete and continuum modelling of size effects in architectured unstable metamaterials. *Continuum Mechanics and Thermodynamics*, **2020**, 32, 1629-1645	3.5	0
219	Kinematics and constitutive relations in the stress-gradient theory: interpretation by homogenization. *International Journal of Solids and Structures*, **2020**, 193-194, 90-97	3.1	8
218	A micromorphic crystal plasticity model with the gradient-enhanced incremental hardening law. *International Journal of Plasticity*, **2020**, 128, 102655	7.6	11
217	Strain Gradient Elasticity From Capillarity to the Mechanics of Nano-objects. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2020**, 37-70	0.6	3
216	A general and efficient multistart algorithm for the detection of loss of ellipticity in elastoplastic structures. *International Journal for Numerical Methods in Engineering*, **2020**, 121, 842-866	2.4	3
215	Crystal plasticity modeling of the cyclic behavior of polycrystalline aggregates under non-symmetric uniaxial loading: Global and local analyses. *International Journal of Plasticity*, **2020**, 126, 102619	7.6	26
214	A Review on Strain Gradient Plasticity Approaches in Simulation of Manufacturing Processes. *Journal of Manufacturing and Materials Processing*, **2020**, 4, 87	2.2	2
213	Thermomechanics of Cosserat medium: modeling adiabatic shear bands in metals. *Continuum Mechanics and Thermodynamics*, **2020**, 1	3.5	6
212	Analysis of material instability of a smooth elastic-inelastic transition model. *International Journal of Solids and Structures*, **2020**, 193-194, 39-53	3.1	0
211	Propagating material instabilities in planar architectured materials. *International Journal of Solids and Structures*, **2020**, 202, 532-551	3.1	5
210	Lagrange multiplier based vs micromorphic gradient-enhanced rate-(in)dependent crystal plasticity modelling and simulation. *Computer Methods in Applied Mechanics and Engineering*, **2020**, 372, 113426	5.7	10
209	Microstructure evolution in deformed polycrystals predicted by a diffuse interface Cosserat approach. *Advanced Modeling and Simulation in Engineering Sciences*, **2020**, 7,	2.7	1
208	Finite-deformation second-order micromorphic theory and its relations to strain and stress gradient models. *Mathematics and Mechanics of Solids*, **2020**, 25, 1429-1449	2.3	17

207	Efficient simulation of single and poly-crystal plasticity based on the pencil glide mechanism. *Comptes Rendus - Mecanique*, **2020**, 348, 847-876	0.3	1
206	Local Ratcheting Phenomena in the Cyclic Behavior of Polycrystalline Tantalum. *Jom*, **2019**, 71, 2586-2599	2.1	7
205	Intragranular localization induced by softening crystal plasticity: Analysis of slip and kink bands localization modes from high resolution FFT-simulations results. *Acta Materialia*, **2019**, 175, 262-275	8.4	23
204	Multiscale modeling of the elasto-plastic behavior of architectured and nanostructured Cu-Nb composite wires and comparison with neutron diffraction experiments. *International Journal of Plasticity*, **2019**, 122, 1-30	7.6	13
203	Strain gradient crystal plasticity with evolving length scale: Application to voided irradiated materials. *European Journal of Mechanics, A/Solids*, **2019**, 77, 103768	3.7	13
202	Oxidation-assisted Cracking **2019**, 339-358		
201	Computational Homogenization of Architectured Materials. *Springer Series in Materials Science*, **2019**, 89-139	0.9	3
200	Systematic design of tetra-petals auxetic structures with stiffness constraint. *Materials and Design*, **2019**, 170, 107669	8.1	21
199	A Cosserat phase-field theory of crystal plasticity and grain boundary migration at finite deformation. *Continuum Mechanics and Thermodynamics*, **2019**, 31, 1109-1141	3.5	8
198	Micromorphic Approach to Gradient Plasticity and Damage **2019**, 499-546		3
197	Micropolar Crystal Plasticity **2019**, 595-642		
196	Micromorphic Crystal Plasticity **2019**, 643-686		2
195	Generalized Continua and Phase-Field Models: Application to Crystal Plasticity. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2019**, 299-344	0.6	1
194	Portevin-Le Chatelier effect triggered by complex loading paths in an Al□u aluminium alloy. *Philosophical Magazine*, **2019**, 99, 659-678	1.6	8
193	Use and Abuse of the Method of Virtual Power in Generalized Continuum Mechanics and Thermodynamics. *Advanced Structured Materials*, **2018**, 311-334	0.6	
192	A Cosserat crystal plasticity and phase field theory for grain boundary migration. *Journal of the Mechanics and Physics of Solids*, **2018**, 115, 167-194	5	26
191	Well-posedness for the microcurl model in both single and polycrystal gradient plasticity. *International Journal of Plasticity*, **2018**, 107, 1-26	7.6	10
190	A reduced micromorphic single crystal plasticity model at finite deformations. Application to strain localization and void growth in ductile metals. *International Journal of Solids and Structures*, **2018**, 134, 43-69	3.1	42

189	Micromorphic Approach to Gradient Plasticity and Damage **2018**, 1-47		
188	Micropolar Crystal Plasticity **2018**, 1-47		2
187	Micromorphic Crystal Plasticity **2018**, 1-44		3
186	Cosserat crystal plasticity with dislocation-driven grain boundary migration. *Journal of Micromechanics and Molecular Physics*, **2018**, 03, 1840009	1.4	4
185	Incipient Bulk Polycrystal Plasticity Observed by Synchrotron In-Situ Topotomography. *Materials*, **2018**, 11,	3.5	12
184	Simulation of Short Fatigue Crack Propagation in a 3D Experimental Microstructure . *Advanced Engineering Materials*, **2017**, 19, 1600721	3.5	19
183	Void growth and coalescence in triaxial stress fields in irradiated FCC single crystals. *Journal of Nuclear Materials*, **2017**, 492, 157-170	3.3	13
182	Hyper-reduction of generalized continua. *Computational Mechanics*, **2017**, 59, 753-778	4	2
181	Interaction of the Portevin□le Chatelier phenomenon with ductile fracture of a thin aluminum CT specimen: experiments and simulations. *International Journal of Fracture*, **2017**, 206, 95-122	2.3	10
180	Isogeometric shape optimization of smoothed petal auxetic structures via computational periodic homogenization. *Computer Methods in Applied Mechanics and Engineering*, **2017**, 323, 250-271	5.7	83
179	Multiscale modeling of the elastic behavior of architectured and nanostructured Cu□Nb composite wires. *International Journal of Solids and Structures*, **2017**, 121, 148-162	3.1	17
178	The Micromorphic Approach to Generalized Heat Equations. *Journal of Non-Equilibrium Thermodynamics*, **2017**, 42,	3.8	18
177	A constitutive model accounting for strain ageing effects on work-hardening. Application to a C□Mn steel. *Comptes Rendus - Mecanique*, **2017**, 345, 908-921	2.1	9
176	Multiscale modeling of the anisotropic electrical conductivity of architectured and nanostructured Cu-Nb composite wires and experimental comparison. *Acta Materialia*, **2017**, 141, 131-141	8.4	15
175	Effects of inclusions on the very high cycle fatigue behaviour of steels. *Fatigue and Fracture of Engineering Materials and Structures*, **2017**, 40, 1694-1707	3	26
174	Experimental and numerical analysis of the L□ders phenomenon in simple shear. *International Journal of Solids and Structures*, **2017**, 106-107, 305-314	3.1	19
173	A rate-independent crystal plasticity model with a smooth elastic□plastic transition and no slip indeterminacy. *European Journal of Mechanics, A/Solids*, **2016**, 55, 278-288	3.7	20
172	Second strain gradient elasticity of nano-objects. *Journal of the Mechanics and Physics of Solids*, **2016**, 97, 92-124	5	81

171	3D simulation of short fatigue crack propagation by finite element crystal plasticity and remeshing. *International Journal of Fatigue*, **2016**, 82, 238-246	5	48
170	Numerical investigation of dynamic strain ageing and slant ductile fracture in a notched specimen and comparison with synchrotron tomography 3D-DVC. *Procedia Structural Integrity*, **2016**, 2, 3385-3392	1	4
169	Nonlinear regularization operators as derived from the micromorphic approach to gradient elasticity, viscoplasticity and damage. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20150755	2.4	61
168	Crystal plasticity simulation of strain aging phenomena in titanium at room temperature. *International Journal of Plasticity*, **2016**, 85, 1-33	7.6	32
167	Coupling Diffraction Contrast Tomography with the Finite Element Method . *Advanced Engineering Materials*, **2016**, 18, 903-912	3.5	18
166	Phase field approaches of bone remodeling based on TIP. *Journal of Non-Equilibrium Thermodynamics*, **2016**, 41,	3.8	7
165	Stress Gradient Elasticity Theory: Existence and Uniqueness of Solution. *Journal of Elasticity*, **2016**, 123, 179-201	1.5	20
164	Micromorphic crystal plasticity versus discrete dislocation dynamics analysis of multilayer pile-up hardening in a narrow channel. *Archive of Applied Mechanics*, **2016**, 86, 21-38	2.2	10
163	Homogenization of viscoplastic constitutive laws within a phase field approach. *Journal of the Mechanics and Physics of Solids*, **2016**, 88, 291-319	5	27
162	Nonlocal constitutive equations of elasto-visco-plasticity coupled with damage and temperature. *MATEC Web of Conferences*, **2016**, 80, 01002	0.3	
161	An elastoviscoplastic model for porous single crystals at finite strains and its assessment based on unit cell simulations. *International Journal of Plasticity*, **2016**, 84, 58-87	7.6	50
160	Microdamage modelling of crack initiation and propagation in FCC single crystals under complex loading conditions. *Computer Methods in Applied Mechanics and Engineering*, **2016**, 312, 468-491	5.7	20
159	Influence of static strain aging on the cleavage fracture of a CMn steel. *Engineering Fracture Mechanics*, **2015**, 141, 95-110	4.2	2
158	Computational homogenisation of periodic cellular materials: Application to structural modelling. *International Journal of Mechanical Sciences*, **2015**, 93, 240-255	5.5	30
157	Strain gradient plasticity modeling of the cyclic behavior of laminate microstructures. *Journal of the Mechanics and Physics of Solids*, **2015**, 79, 1-20	5	69
156	Size-dependent energy in crystal plasticity and continuum dislocation models. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2015**, 471, 20140868	2.4	17
155	Three-dimensional characterization of fatigue-relevant intermetallic particles in high-strength aluminium alloys using synchrotron X-ray nanotomography. *Philosophical Magazine*, **2015**, 95, 2731-2746	1.6	9
154	Strain gradient plasticity modeling and finite element simulation of Lders band formation and propagation. *Continuum Mechanics and Thermodynamics*, **2015**, 27, 83-104	3.5	53

153	Field theory and diffusion creep predictions in polycrystalline aggregates. *Modelling and Simulation in Materials Science and Engineering*, **2015**, 23, 055006	2	13
152	Mod□sation multi-□helle du comportement □ectrique de nano-composites Cu-Nb. *Materiaux Et Techniques*, **2015**, 103, 309	0.6	5
151	Modelling inheritance of plastic deformation during migration of phase boundaries using a phase field method. *Meccanica*, **2014**, 49, 2699-2717	2.1	18
150	Investigation and modeling of the anomalous yield point phenomenon in pure tantalum. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 615, 283-295	5.3	16
149	A fully coupled diffusional-mechanical formulation: numerical implementation, analytical validation, and effects of plasticity on equilibrium. *Archive of Applied Mechanics*, **2014**, 84, 1647-1664	2.2	27
148	Influence of Particles on Short Fatigue Crack Initiation in 2050-T8 and 7050-T74. *Materials Science Forum*, **2014**, 794-796, 296-301	0.4	2
147	Crystal plasticity finite element simulation of crack growth in single crystals. *Computational Materials Science*, **2014**, 94, 191-197	3.2	24
146	Coupled glide-climb diffusion-enhanced crystal plasticity. *Journal of the Mechanics and Physics of Solids*, **2014**, 70, 136-153	5	41
145	Influence of intermetallic particles on short fatigue crack initiation in AA2050-T8 and AA7050-T7451. *MATEC Web of Conferences*, **2014**, 12, 07003	0.3	0
144	On the creep deformation of nickel foams under compression. *Comptes Rendus Physique*, **2014**, 15, 705-718	1.4	8
143	Towards gigantic RVE sizes for 3D stochastic fibrous networks. *International Journal of Solids and Structures*, **2014**, 51, 359-376	3.1	67
142	The thermodynamics of gradient elastoplasticity. *Continuum Mechanics and Thermodynamics*, **2014**, 26, 269-286	3.5	28
141	Micromorphic approach to crystal plasticity and phase transformation. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2014**, 131-198	0.6	9
140	Gianpietro Del Piero: a scientist on the edge between engineering sciences and functional analysis. *Continuum Mechanics and Thermodynamics*, **2013**, 25, 109-110	3.5	
139	Computational homogenization of porous materials of Green type. *Computational Mechanics*, **2013**, 52, 121-134	4	33
138	Crystal plasticity analysis of cylindrical indentation on a Ni-base single crystal superalloy. *International Journal of Plasticity*, **2013**, 51, 200-217	7.6	53
137	Inspection of free energy functions in gradient crystal plasticity. *Acta Mechanica Sinica/Lixue Xuebao*, **2013**, 29, 763-772	2	39
136	A yield function for single crystals containing voids. *International Journal of Solids and Structures*, **2013**, 50, 2115-2131	3.1	77

135	Effective elastic properties of auxetic microstructures: anisotropy and structural applications. *International Journal of Mechanics and Materials in Design*, **2013**, 9, 21-33	2.5	91
134	Questioning size effects as predicted by strain gradient plasticity. *Journal of the Mechanical Behavior of Materials*, **2013**, 22, 101-110	1.9	14
133	Micromorphic modelling of grain size effects in metal polycrystals. *GAMM Mitteilungen*, **2013**, 36, 186-202	2.8	17
132	Multiscale creep characterization and modeling of a zirconia-rich fused-cast refractory. *Philosophical Magazine*, **2013**, 93, 2701-2728	1.6	1
131	Micromorphic Media. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2013**, 249-300		18
130	Combining X-Ray Microtomography with the Finite Elements Method to Study Damage and Cracking in Stuctural Materials **2013**, 1163-1173		
129	Effect of secondary orientation on notch-tip plasticity in superalloy single crystals. *International Journal of Plasticity*, **2012**, 28, 102-123	7.6	60
128	Computational homogenization of elasto-plastic porous metals. *International Journal of Plasticity*, **2012**, 29, 102-119	7.6	125
127	Modelling the effects of various contents of fillers on the relaxation rate of elastomers. *Materials & Design*, **2012**, 33, 75-82		10
126	Reprint of: Modelling the effects of various contents of fillers on the relaxation rate of elastomers. *Materials & Design*, **2012**, 35, 839-846		3
125	Stress gradient continuum theory. *Mechanics Research Communications*, **2012**, 40, 16-25	2.2	59
124	Experimental and numerical study of dynamic strain ageing and its relation to ductile fracture of a C□Mn steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 547, 19-31	5.3	21
123	A phase field model incorporating strain gradient viscoplasticity: Application to rafting in Ni-base superalloys. *Journal of the Mechanics and Physics of Solids*, **2012**, 60, 1243-1256	5	67
122	Impact of material processing and deformation on cell morphology and mechanical behavior of polyurethane and nickel foams. *International Journal of Solids and Structures*, **2012**, 49, 2714-2732	3.1	35
121	Identification of a strain-aging model accounting for L□ders behavior in a C-Mn steel. *Philosophical Magazine*, **2012**, 92, 3589-3617	1.6	22
120	Generalized Continuum Modelling of Crystal Plasticity **2012**, 181-287		5
119	Generalised continuum modelling of grain size effects in polycrystals. *Comptes Rendus - Mecanique*, **2012**, 340, 261-274	2.1	19
118	Analysis of particle induced dislocation structures using three-dimensional dislocation dynamics and strain gradient plasticity. *Computational Materials Science*, **2012**, 52, 33-39	3.2	24

117	Grain size effects on plastic strain and dislocation density tensor fields in metal polycrystals. *Computational Materials Science*, **2012**, 52, 7-13	3.2	52
116	Elastoplasticity of auxetic materials. *Computational Materials Science*, **2012**, 64, 57-61	3.2	55
115	Phase field modelling of grain boundary motion driven by curvature and stored energy gradients. Part I: theory and numerical implementation. *Philosophical Magazine*, **2012**, 92, 3618-3642	1.6	55
114	Phase field modelling of grain boundary motion driven by curvature and stored energy gradients. Part II: Application to recrystallisation. *Philosophical Magazine*, **2012**, 92, 3643-3664	1.6	44
113	EVALUATION OF GENERALIZED CONTINUUM SUBSTITUTION MODELS FOR HETEROGENEOUS MATERIALS. *International Journal for Multiscale Computational Engineering*, **2012**, 10, 527-549	2.4	54
112	Advancement of Experimental Methods and Cailletaud Material Model for Life Prediction of Gas Turbine Blades Exposed to Combined Cycle Fatigue **2012**,		2
111	First vs. second gradient of strain theory for capillarity effects in an elastic fluid at small length scales. *Computational Materials Science*, **2011**, 50, 1299-1304	3.2	54
110	A multiscale microstructure model of carbon black distribution in rubber. *Journal of Microscopy*, **2011**, 241, 243-60	1.9	33
109	Portevin□le Chatelier (PLC) instabilities and slant fracture in C□Mn steel round tensile specimens. *Scripta Materialia*, **2011**, 64, 430-433	5.6	27
108	Micromorphic approach to single crystal plasticity and damage. *International Journal of Engineering Science*, **2011**, 49, 1311-1325	5.7	88
107	Generalized continua and non-homogeneous boundary conditions in homogenisation methods. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **2011**, 91, 90-109	1	114
106	Virtual improvement of ice cream properties by computational homogenization of microstructures. *Mechanics Research Communications*, **2011**, 38, 136-140	2.2	9
105	Homogenization of periodic auxetic materials. *Procedia Engineering*, **2011**, 10, 1847-1852		40
104	Phase field modeling of elasto-plastic deformation induced by diffusion controlled growth of a misfitting spherical precipitate. *Philosophical Magazine Letters*, **2011**, 91, 164-172	1	25
103	Numerical Modeling of Fatigue Crack Growth in Single Crystals Based on Microdamage Theory. *International Journal of Damage Mechanics*, **2011**, 20, 681-705	3	22
102	LARGE-SCALE COMPUTATIONS OF EFFECTIVE ELASTIC PROPERTIES OF RUBBER WITH CARBON BLACK FILLERS. *International Journal for Multiscale Computational Engineering*, **2011**, 9, 271-303	2.4	22
101	Formulations of Strain Gradient Plasticity. *Advanced Structured Materials*, **2011**, 137-149	0.6	10
100	Micromorphic vs. Phase-Field Approaches for Gradient Viscoplasticity and Phase Transformations. *Lecture Notes in Applied and Computational Mechanics*, **2011**, 69-88	0.3	13

99	The Micromorphic versus Phase Field Approach to Gradient Plasticity and Damage with Application to Cracking in Metal Single Crystals. *Lecture Notes in Applied and Computational Mechanics*, **2011**, 135-153	9.3	9
98	Numerical Simulation of the Portevin Le Chatelier Effect in Various Material and at Different Scales. *Materials Science Forum*, **2010**, 638-642, 2670-2675	0.4	1
97	Methodology for studying strain inhomogeneities in polycrystalline thin films during in situ thermal loading using coherent x-ray diffraction. *New Journal of Physics*, **2010**, 12, 035018	2.9	24
96	Non-Linear Mechanics of Materials. *Solid Mechanics and Its Applications*, **2010**,	0.4	77
95	Modeling Strain Localization Bands in Metal Foams. *Journal of Computational and Theoretical Nanoscience*, **2010**, 7, 360-366	0.3	8
94	Size effects in generalised continuum crystal plasticity for two-phase laminates. *Journal of the Mechanics and Physics of Solids*, **2010**, 58, 1963-1994	5	90
93	Numerical aspects in the finite element simulation of the Portevin Le Chatelier effect. *Computer Methods in Applied Mechanics and Engineering*, **2010**, 199, 734-754	5.7	44
92	Finite element simulations of coherent diffraction in elastoplastic polycrystalline aggregates. *Comptes Rendus Physique*, **2010**, 11, 293-303	1.4	4
91	Some links between recent gradient thermo-elasto-plasticity theories and the thermomechanics of generalized continua. *International Journal of Solids and Structures*, **2010**, 47, 3367-3376	3.1	122
90	The role of the fluctuation field in higher order homogenization. *Proceedings in Applied Mathematics and Mechanics*, **2010**, 10, 431-432	0.2	4
89	Mechanisms and Modeling of Bake-Hardening Steels: Part II. Complex Loading Paths. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2009**, 40, 1375-1382	2.3	11
88	Mechanisms and Modeling of Bake-Hardening Steels: Part I. Uniaxial Tension. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2009**, 40, 1367-1374	2.3	31
87	New opportunities for 3D materials science of polycrystalline materials at the micrometre lengthscale by combined use of X-ray diffraction and X-ray imaging. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 524, 69-76	5.3	143
86	Overspeed burst of elastoviscoplastic rotating disks: Part II Burst of a superalloy turbine disk. *European Journal of Mechanics, A/Solids*, **2009**, 28, 428-432	3.7	24
85	Mechanical behavior and crack tip plasticity of a strain aging sensitive steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 526, 156-165	5.3	32
84	Overspeed burst of elastoviscoplastic rotating disks Part I: Analytical and numerical stability analyses. *European Journal of Mechanics, A/Solids*, **2009**, 28, 36-44	3.7	32
83	Micromorphic Approach for Gradient Elasticity, Viscoplasticity, and Damage. *Journal of Engineering Mechanics - ASCE*, **2009**, 135, 117-131	2.4	390
82	Comparison of mechanical behaviour of thin film simulated by discrete dislocation dynamics and continuum crystal plasticity. *Computational Materials Science*, **2009**, 45, 793-799	3.2	19

81	Finite element formulation of a phase field model based on the concept of generalized stresses. *Computational Materials Science*, **2009**, 45, 800-805	3.2	61
80	Crack growth modelling in single crystals based on higher order continua. *Computational Materials Science*, **2009**, 45, 756-761	3.2	25
79	Finite element crystal plasticity analysis of spherical indentation in bulk single crystals and coatings. *Computational Materials Science*, **2009**, 45, 774-782	3.2	45
78	Generalization of the polycrystalline model: Finite element assessment and application to softening material behavior. *Computational Materials Science*, **2009**, 45, 1104-1112	3.2	15
77	Combining phase field approach and homogenization methods for modelling phase transformation in elastoplastic media. *European Journal of Computational Mechanics*, **2009**, 18, 485-523	0.5	63
76	Modelling the effects of various contents of fillers on the relaxation rate of filled rubbers **2009**, 417-422		
75	Mechanical Behavior of Nickel Base Foams for Diesel Particle Filter Applications. *IUTAM Symposium on Cellular, Molecular and Tissue Mechanics*, **2009**, 51-67	0.3	2
74	Numerical modelling of the Portevin-Le Chatelier effect. *European Journal of Computational Mechanics*, **2008**, 17, 761-772	0.5	8
73	Finite element simulations of the Portevin-Le Chatelier effect in metal-matrix composites. *Philosophical Magazine*, **2008**, 88, 3389-3414	1.6	12
72	Some links between Cosserat, strain gradient crystal plasticity and the statistical theory of dislocations. *Philosophical Magazine*, **2008**, 88, 3549-3563	1.6	51
71	Hypertemperature in thermoelastic solids. *Comptes Rendus - Mecanique*, **2008**, 336, 347-353	2.1	57
70	Ensemble averaging stress–strain fields in polycrystalline aggregates with a constrained surface microstructure – Part 1: anisotropic elastic behaviour. *Philosophical Magazine*, **2007**, 87, 1401-1424	1.6	59
69	Ensemble averaging stress–strain fields in polycrystalline aggregates with a constrained surface microstructure – Part 2: crystal plasticity. *Philosophical Magazine*, **2007**, 87, 1425-1446	1.6	78
68	A Geometrically Exact Micromorphic Model for Elastic Metallic Foams Accounting for Affine Microstructure. Modelling, Existence of Minimizers, Identification of Moduli and Computational Results. *Journal of Elasticity*, **2007**, 87, 239-276	1.5	111
67	Modeling of Deformation of FCC Polycrystalline Aggregates Using a Dislocation-based Crystal Plasticity Model. *AIP Conference Proceedings*, **2007**,	0	5
66	Finite element simulations of the cyclic elastoplastic behaviour of copper thin films. *Modelling and Simulation in Materials Science and Engineering*, **2007**, 15, S217-S238	2	20
65	Finite element simulations of the deformation of fused-cast refractories based on X-ray computed tomography. *Computational Materials Science*, **2007**, 39, 224-229	3.2	48
64	Simulations of stress–strain heterogeneities in copper thin films: Texture and substrate effects. *Computational Materials Science*, **2007**, 39, 137-141	3.2	16

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