

Giang D Nguyen

List of Publications by Year in descending order

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103
papers

2,949
citations

136950

32
h-index

197818

49
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104
docs citations

104
times ranked

1799
citing authors

#	ARTICLE	IF	CITATIONS
1	Micromechanically inspired investigation of cemented granular materials: part II – from experiments to modelling and back. <i>Acta Geotechnica</i> , 2023, 18, 57-75.	5.7	3
2	Localised failure of geomaterials: how to extract localisation band behaviour from macro test data. <i>Geotechnique</i> , 2022, 72, 596-609.	4.0	3
3	DEM modelling of unsaturated seepage flows through porous media. <i>Computational Particle Mechanics</i> , 2022, 9, 135-152.	3.0	11
4	A combined numerical-experimental approach to analyzing fracture initiation and development in brittle rocks. <i>Computers and Geotechnics</i> , 2022, 145, 104663.	4.7	2
5	Analysis of transition from diffuse to localized failure in sandstone and concrete using Digital Image correlation. <i>Engineering Fracture Mechanics</i> , 2022, 267, 108465.	4.3	6
6	Modeling submerged granular flow across multiple regimes using the Eulerian – Eulerian approach with shear-induced volumetric behavior. <i>Physics of Fluids</i> , 2022, 34, .	4.0	2
7	Constitutive modelling of partially saturated soils: Hydro-mechanical coupling in a generic thermodynamics-based formulation. <i>International Journal of Plasticity</i> , 2021, 136, 102821.	8.8	11
8	Evaluation of the propensity of strain burst in brittle granite based on post-peak energy analysis. <i>Underground Space (China)</i> , 2021, 6, 1-11.	7.5	38
9	Effect of Specimen Size on Localization using Digital Image Correlation. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 397-405.	0.4	1
10	Effect of particle rolling resistance on drained and undrained behaviour of silty sand. <i>Acta Geotechnica</i> , 2021, 16, 2657-2682.	5.7	19
11	Numerical investigation of the mechanism of granular flow impact on rigid control structures. <i>Acta Geotechnica</i> , 2021, 16, 2505-2527.	5.7	38
12	Modelling the influence of fines content on the instability of silty sands considering grain scale interactions. <i>International Journal of Plasticity</i> , 2021, 143, 103020.	8.8	5
13	Shear yielding and failure of cold-reduced G450 sheet steel. <i>Journal of Constructional Steel Research</i> , 2021, 185, 106844.	3.9	2
14	Smoothed particle hydrodynamics (SPH) and its applications in geomechanics: From solid fracture to granular behaviour and multiphase flows in porous media. <i>Computers and Geotechnics</i> , 2021, 138, 104315.	4.7	89
15	Hybrid Discrete-Continuum Approach to Model Hydromechanical Behavior of Soil during Desiccation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	3.0	8
16	Capturing snapback in indirect tensile testing using AUSBIT - Adelaide University Snap-Back Indirect Tensile test. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 147, 104897.	5.8	5
17	A general SPH framework for transient seepage flows through unsaturated porous media considering anisotropic diffusion. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 387, 114169.	6.6	24
18	A thermodynamics- and mechanism-based framework for constitutive models with evolving thickness of localisation band. <i>International Journal of Solids and Structures</i> , 2020, 187, 100-120.	2.7	36

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19	Investigation of the compressive behavior and failure modes of unconfined and FRP-confined concrete using digital image correlation. <i>Composite Structures</i> , 2020, 252, 112642.	5.8	29
20	Strain burst vulnerability criterion based on energy-release rate. <i>Engineering Fracture Mechanics</i> , 2020, 237, 107232.	4.3	12
21	A combined theoretical-experimental approach for modelling ductile fracture of cold-reduced G450 steel sheet. <i>International Journal of Solids and Structures</i> , 2020, 200-201, 242-265.	2.7	5
22	A scalable parallel computing SPH framework for predictions of geophysical granular flows. <i>Computers and Geotechnics</i> , 2020, 121, 103474.	4.7	34
23	Simulation of mixed-mode fracture using SPH particles with an embedded fracture process zone. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2020, 44, 1417-1445.	3.3	28
24	An approach to calculating large strain accumulation for discrete element simulations of granular media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2020, 44, 1525-1547.	3.3	17
25	Meshfree SPH modelling of shrinkage induced cracking in clayey soils. <i>Lecture Notes in Civil Engineering</i> , 2020, , 889-894.	0.4	5
26	Numerical predictions of post-flow behaviour of granular materials using an improved SPH model. <i>Lecture Notes in Civil Engineering</i> , 2020, , 895-900.	0.4	8
27	Predicting onset and orientation of localisation bands using a cohesive-frictional model. <i>Lecture Notes in Civil Engineering</i> , 2020, , 311-316.	0.4	1
28	Effects of material properties on the mobility of granular flow. <i>Granular Matter</i> , 2020, 22, 1.	2.2	30
29	Incorporation of micro-cracking and fibre bridging mechanisms in constitutive modelling of fibre reinforced concrete. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 133, 103732.	4.8	28
30	Modelling 3D desiccation cracking in clayey soils using a size-dependent SPH computational approach. <i>Computers and Geotechnics</i> , 2019, 116, 103209.	4.7	44
31	A micromechanical investigation for the effects of pore size and its distribution on geopolymer foam concrete under uniaxial compression. <i>Engineering Fracture Mechanics</i> , 2019, 209, 228-244.	4.3	98
32	Discrete element method investigation of particle size distribution effects on the flexural properties of cement-treated base. <i>Computers and Geotechnics</i> , 2019, 113, 103096.	4.7	11
33	A generic approach to modelling flexible confined boundary conditions in <sc>SPH</sc> and its application. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2019, 43, 1005-1031.	3.3	31
34	An experimental and theoretical stress-strain-damage correlation procedure for constitutive modelling of granite. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 116, 1-12.	5.8	33
35	Block shear strength and behaviour of cold-reduced G450 steel bolted connections using DIC. <i>Journal of Constructional Steel Research</i> , 2019, 157, 151-160.	3.9	20
36	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. <i>Soil Dynamics and Earthquake Engineering</i> , 2019, 120, 245-256.	3.8	6

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37	A new SPH-based continuum framework with an embedded fracture process zone for modelling rock fracture. <i>International Journal of Solids and Structures</i> , 2019, 159, 40-57.	2.7	50
38	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. <i>International Journal of Impact Engineering</i> , 2018, 116, 65-78.	5.0	16
39	Effects of Thermal Damage on Strain Burst Mechanism for Brittle Rocks Under True-Triaxial Loading Conditions. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 1657-1682.	5.4	103
40	A smoothed particle hydrodynamics framework for modelling multiphase interactions at meso-scale. <i>Computational Mechanics</i> , 2018, 62, 1071-1085.	4.0	16
41	The Roles and Effects of Friction in Cohesive Zone Modelling: A Thermodynamics-Based Formulation. <i>Lecture Notes in Civil Engineering</i> , 2018, , 288-296.	0.4	1
42	Localised failure mechanism as the basis for constitutive modelling of geomaterials. <i>International Journal of Engineering Science</i> , 2018, 133, 284-310.	5.0	40
43	Influence of deviatoric stress on rockburst occurrence: An experimental study. <i>International Journal of Mining Science and Technology</i> , 2018, 28, 763-766.	10.3	24
44	Coarse-grained modeling of multiphase interactions at microscale. <i>Journal of Chemical Physics</i> , 2018, 149, 124505.	3.0	4
45	Evaluation of cement sheath integrity subject to enhanced pressure. <i>Journal of Petroleum Science and Engineering</i> , 2018, 170, 1-13.	4.2	53
46	Experimental Study on the Damage Evolution of Brittle Rock Under Triaxial Confinement with Full Circumferential Strain Control. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 3321-3341.	5.4	65
47	A thermodynamics-based model for brittle to ductile behaviour and localised failure of porous rocks. <i>International Journal of Solids and Structures</i> , 2018, 152-153, 161-184.	2.7	16
48	Failure Analysis of a Cold-Rolled Steel Tensile Specimen Using a Damage-Plasticity Model. <i>Lecture Notes in Civil Engineering</i> , 2018, , 131-141.	0.4	0
49	A new SPH-based approach to simulation of granular flows using viscous damping and stress regularisation. <i>Landslides</i> , 2017, 14, 69-81.	5.4	112
50	Capturing pressure- and rate-dependent behaviour of rocks using a new damage-plasticity model. <i>International Journal of Impact Engineering</i> , 2017, 110, 208-218.	5.0	24
51	Constitutive modelling of progressive localised failure in porous sandstones under shearing at high confining pressures. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2017, 93, 179-195.	5.8	23
52	A thermodynamics-based formulation for constitutive modelling using damage mechanics and plasticity theory. <i>Engineering Structures</i> , 2017, 143, 22-39.	5.3	18
53	Experimental and numerical investigation of influence of air-voids on the compressive behaviour of foamed concrete. <i>Materials and Design</i> , 2017, 130, 103-119.	7.0	140
54	A coupled fluid-solid SPH approach to modelling flow through deformable porous media. <i>International Journal of Solids and Structures</i> , 2017, 125, 244-264.	2.7	100

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55	A kinematically enhanced constitutive model for elastic and inelastic analysis of unidirectional fibre reinforced composite materials. International Journal of Mechanical Sciences, 2017, 126, 171-185.	6.7	7
56	A thermodynamics-based cohesive model for discrete element modelling of fracture in cemented materials. International Journal of Solids and Structures, 2017, 117, 159-176.	2.7	42
57	Uniaxial compressive behavior of partially saturated granular media under high strain rates. International Journal of Impact Engineering, 2017, 102, 156-168.	5.0	22
58	Modelling jointed rock mass as a continuum with an embedded cohesive-frictional model. Engineering Geology, 2017, 228, 107-120.	6.3	37
59	A cohesive damage-plasticity model for DEM and its application for numerical investigation of soft rock fracture properties. International Journal of Plasticity, 2017, 98, 175-196.	8.8	101
60	Residual opening of hydraulic fractures created using the channel fracturing technique. International Journal of Rock Mechanics and Minings Sciences, 2017, 100, 124-137.	5.8	7
61	SPH Simulation of Strain Localisation in Geomaterials Using a Visco-Plastic Constitutive Model. , 2017, , .		8
62	Numerical Study of Particle Size Distribution Effect on the Failure of Asphalt Mixtures Using Discrete Element Method. , 2017, , .		3
63	Discrete Element Modelling of the Mechanical Behaviour of a Highly Porous Foamed Concrete. , 2017, , .		3
64	A Continuum Based Approach to Modelling Tensile Cracks in Soils. , 2017, , .		5
65	A Mesh-Free Continuum Based Computational Approach to Modelling Rock Fracture. , 2017, , .		7
66	Influence of specimen dimensions on bursting behaviour of rocks under true triaxial loading condition. , 2017, , .		2
67	A size-dependent constitutive modelling framework for localised failure analysis. Computational Mechanics, 2016, 58, 257-280.	4.0	37
68	Ligand-mediated adhesive mechanics of two static, deformed spheres. European Physical Journal E, 2016, 39, 95.	1.6	6
69	Constitutive modelling of compaction localisation in porous sandstones. International Journal of Rock Mechanics and Minings Sciences, 2016, 83, 57-72.	5.8	40
70	An application of breakage mechanics for predicting energyâ€“size reduction relationships in comminution. Powder Technology, 2016, 287, 121-130.	4.2	16
71	On the evaluation of stress intensity factor from displacement field affected by 3D corner singularity. International Journal of Solids and Structures, 2016, 78-79, 131-137.	2.7	19
72	A numerical study of bioinspired nacre-like composite plates under blast loading. Composite Structures, 2015, 126, 329-336.	5.8	54

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73	Editorial note " On the aims & scope and priority areas in Materials & Design. Materials and Design, 2015, 88, 1377-1380.	7.0	16
74	A nonlocal coupled damage-plasticity model for the analysis of ductile failure. International Journal of Plasticity, 2015, 64, 56-75.	8.8	73
75	Numerical investigation of the impact behaviour of bioinspired nacre-like aluminium composite plates. Composites Science and Technology, 2014, 96, 13-22.	7.8	113
76	A thermodynamics-based cohesive model for interface debonding and friction. International Journal of Solids and Structures, 2014, 51, 647-659.	2.7	42
77	A thermomechanical constitutive model for cemented granular materials with quantifiable internal variables. Part II " Validation and localization analysis. Journal of the Mechanics and Physics of Solids, 2014, 70, 382-405.	4.8	59
78	A thermomechanical constitutive model for cemented granular materials with quantifiable internal variables. Part I " Theory. Journal of the Mechanics and Physics of Solids, 2014, 70, 281-296.	4.8	76
79	A constitutive modelling framework featuring two scales of behaviour: Fundamentals and applications to quasi-brittle failure. Engineering Fracture Mechanics, 2014, 115, 221-240.	4.3	37
80	The propagation of compaction bands in porous rocks based on breakage mechanics. Journal of Geophysical Research: Solid Earth, 2013, 118, 2049-2066.	3.4	42
81	A Micromechanics Based Model for Cemented Granular Materials. Springer Series in Geomechanics and Geoengineering, 2013, , 527-534.	0.1	5
82	Crack Modelling Using the Material Point Method and a Strong Discontinuity Approach. Key Engineering Materials, 2012, 525-526, 513-516.	0.4	1
83	A generic approach to constitutive modelling of composite delamination under mixed-mode loading conditions. Composites Science and Technology, 2012, 72, 269-277.	7.8	10
84	On the partition of fracture energy in constitutive modelling of quasi-brittle materials. Engineering Fracture Mechanics, 2012, 79, 225-244.	4.3	15
85	Compaction bands due to grain crushing in porous rocks: A theoretical approach based on breakage mechanics. Journal of Geophysical Research, 2011, 116, .	3.3	73
86	A damage model with evolving nonlocal interactions. International Journal of Solids and Structures, 2011, 48, 1544-1559.	2.7	42
87	A stress"return algorithm for nonlocal constitutive models of softening materials. International Journal for Numerical Methods in Engineering, 2010, 82, 637-670.	2.8	10
88	Nonlocal regularisation of a model based on breakage mechanics for granular materials. International Journal of Solids and Structures, 2010, 47, 1350-1360.	2.7	25
89	Steady state permeability profiles surrounding penetrating piles in crushable granular media. , 2010, , 789-795.		1
90	The Energetics of Cataclasis Based on Breakage Mechanics. Pure and Applied Geophysics, 2009, 166, 1693-1724.	1.9	96

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91	Consistent tangent stiffness for local-nonlocal damage modelling of metals. <i>Procedia Engineering</i> , 2009, 1, 177-180.	1.2	7
92	A coupled damage-plasticity model for concrete based on thermodynamic principles: Part I: model formulation and parameter identification. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2008, 32, 353-389.	3.3	44
93	A coupled damage-plasticity model for concrete based on thermodynamic principles: Part II: non-local regularization and numerical implementation. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2008, 32, 391-413.	3.3	25
94	A thermodynamic approach to non-local damage modelling of concrete. <i>International Journal of Solids and Structures</i> , 2008, 45, 1918-1934.	2.7	25
95	Development of an approach to constitutive modelling of concrete: Isotropic damage coupled with plasticity. <i>International Journal of Solids and Structures</i> , 2008, 45, 5483-5501.	2.7	56
96	Metrics for evaluating linear features. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	6
97	Non-local damage modelling of concrete: a procedure for the determination of model parameters. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2007, 31, 867-891.	3.3	23
98	A One-Dimensional Nonlocal Damage-Plasticity Model for Ductile Materials. <i>International Journal of Fracture</i> , 2007, 144, 53-60.	2.2	13
99	The analysis of deformation size effects using multiple gauge length extensometry and the essential work of rupture concept. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 423, 192-198.	5.6	13
100	Damage-Plasticity Modelling of Concrete: Calibration of Parameters using Separation of Fracture Energy. <i>International Journal of Fracture</i> , 2006, 139, 325-332.	2.2	7
101	Analysis of Essential Work of Rupture using Non-local Damage-plasticity Modelling. <i>International Journal of Fracture</i> , 2005, 135, L19-L26.	2.2	16
102	Finite-Element Modelling of the Impact Behaviour of Aluminium Nacre-Like Composite. <i>Applied Mechanics and Materials</i> , 0, 566, 457-462.	0.2	3
103	A computationally efficient SPH framework for unsaturated soils and its application to predicting the entire rainfall-induced slope failure process. <i>Geotechnique</i> , 0, , 1-19.	4.0	8