Giang D Nguyen

List of Publications by Year
in descending order

103 papers	2,949 citations	136950 32 h-index	197818 49 g-index
104 all docs	104 docs citations	104 times ranked	1799 citing authors

#	Article	IF	Citations
1	Experimental and numerical investigation of influence of air-voids on the compressive behaviour of foamed concrete. Materials and Design, 2017, 130, 103-119.	7.0	140
2	Numerical investigation of the impact behaviour of bioinspired nacre-like aluminium composite plates. Composites Science and Technology, 2014, 96, 13-22.	7.8	113
3	A new SPH-based approach to simulation of granular flows using viscous damping and stress regularisation. Landslides, 2017, 14, 69-81.	5.4	112
4	Effects of Thermal Damage on Strain Burst Mechanism for Brittle Rocks Under True-Triaxial Loading Conditions. Rock Mechanics and Rock Engineering, 2018, 51, 1657-1682.	5.4	103
5	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
6	A coupled fluid-solid SPH approach to modelling flow through deformable porous media. International Journal of Solids and Structures, 2017, 125, 244-264.	2.7	100
7	A micromechanical investigation for the effects of pore size and its distribution on geopolymer foam concrete under uniaxial compression. Engineering Fracture Mechanics, 2019, 209, 228-244.	4.3	98
8	The Energetics of Cataclasis Based on Breakage Mechanics. Pure and Applied Geophysics, 2009, 166, 1693-1724.	1.9	96
9	Smoothed particle hydrodynamics (SPH) and its applications in geomechanics: From solid fracture to granular behaviour and multiphase flows in porous media. Computers and Geotechnics, 2021, 138, 104315.	4.7	89
10	A thermomechanical constitutive model for cemented granular materials with quantifiable internal variables. Part Iâ€"Theory. Journal of the Mechanics and Physics of Solids, 2014, 70, 281-296.	4.8	76
11	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
12	A nonlocal coupled damage-plasticity model for the analysis of ductile failure. International Journal of Plasticity, 2015, 64, 56-75.	8.8	73
13	Experimental Study on the Damage Evolution of Brittle Rock Under Triaxial Confinement with Full Circumferential Strain Control. Rock Mechanics and Rock Engineering, 2018, 51, 3321-3341.	5.4	65
14	A thermomechanical constitutive model for cemented granular materials with quantifiable internal variables. Part II â€" Validation and localization analysis. Journal of the Mechanics and Physics of Solids, 2014, 70, 382-405.	4.8	59
15	Development of an approach to constitutive modelling of concrete: Isotropic damage coupled with plasticity. International Journal of Solids and Structures, 2008, 45, 5483-5501.	2.7	56
16	A numerical study of bioinspired nacre-like composite plates under blast loading. Composite Structures, 2015, 126, 329-336.	5.8	54
17	Evaluation of cement sheath integrity subject to enhanced pressure. Journal of Petroleum Science and Engineering, 2018, 170, 1-13.	4.2	53
18	A new SPH-based continuum framework with an embedded fracture process zone for modelling rock fracture. International Journal of Solids and Structures, 2019, 159, 40-57.	2.7	50

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19	A coupled damageâ€“plasticity model for concrete based on thermodynamic principles: Part I: model formulation and parameter identification. International Journal for Numerical and Analytical Methods in Geomechanics, 2008, 32, 353-389.	3.3	44
20	Modelling 3D desiccation cracking in clayey soils using a size-dependent SPH computational approach. Computers and Geotechnics, 2019, 116, 103209.	4.7	44
21	A damage model with evolving nonlocal interactions. International Journal of Solids and Structures, 2011, 48, 1544-1559.	2.7	42
22	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
23	A thermodynamics-based cohesive model for interface debonding and friction. International Journal of Solids and Structures, 2014, 51, 647-659.	2.7	42
24	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
25	Constitutive modelling of compaction localisation in porous sandstones. International Journal of Rock Mechanics and Minings Sciences, 2016, 83, 57-72.	5.8	40
26	Localised failure mechanism as the basis for constitutive modelling of geomaterials. International Journal of Engineering Science, 2018, 133, 284-310.	5.0	40
27	Evaluation of the propensity of strain burst in brittle granite based on post-peak energy analysis. Underground Space (China), 2021, 6, 1-11.	7.5	38
28	Numerical investigation of the mechanism of granular flow impact on rigid control structures. Acta Geotechnica, 2021, 16, 2505-2527.	5.7	38
29	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
30	A size-dependent constitutive modelling framework for localised failure analysis. Computational Mechanics, 2016, 58, 257-280.	4.0	37
31	Modelling jointed rock mass as a continuum with an embedded cohesive-frictional model. Engineering Geology, 2017, 228, 107-120.	6.3	37
32	A thermodynamics- and mechanism-based framework for constitutive models with evolving thickness of localisation band. International Journal of Solids and Structures, 2020, 187, 100-120.	2.7	36
33	A scalable parallel computing SPH framework for predictions of geophysical granular flows. Computers and Geotechnics, 2020, 121, 103474.	4.7	34
34	An experimental and theoretical stress-strain-damage correlation procedure for constitutive modelling of granite. International Journal of Rock Mechanics and Minings Sciences, 2019, 116, 1-12.	5.8	33
35	A generic approach to modelling flexible confined boundary conditions in <scp>SPH</scp> and its application. International Journal for Numerical and Analytical Methods in Geomechanics, 2019, 43, 1005-1031.	3.3	31
36	Effects of material properties on the mobility of granular flow. Granular Matter, 2020, 22, 1.	2.2	30

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37	Investigation of the compressive behavior and failure modes of unconfined and FRP-confined concrete using digital image correlation. Composite Structures, 2020, 252, 112642.	5.8	29
38	Incorporation of micro-cracking and fibre bridging mechanisms in constitutive modelling of fibre reinforced concrete. Journal of the Mechanics and Physics of Solids, 2019, 133, 103732.	4.8	28
39	Simulation of mixedâ€mode fracture using SPH particles with an embedded fracture process zone. International Journal for Numerical and Analytical Methods in Geomechanics, 2020, 44, 1417-1445.	3.3	28
40	A coupled damageâ€“plasticity model for concrete based on thermodynamic principles: Part II: nonâ€local regularization and numerical implementation. International Journal for Numerical and Analytical Methods in Geomechanics, 2008, 32, 391-413.	3.3	25
41	A thermodynamic approach to non-local damage modelling of concrete. International Journal of Solids and Structures, 2008, 45, 1918-1934.	2.7	25
42	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
43	Capturing pressure- and rate-dependent behaviour of rocks using a new damage-plasticity model. International Journal of Impact Engineering, 2017, 110, 208-218.	5.0	24
44	Influence of deviatoric stress on rockburst occurrence: An experimental study. International Journal of Mining Science and Technology, 2018, 28, 763-766.	10.3	24
45	A general SPH framework for transient seepage flows through unsaturated porous media considering anisotropic diffusion. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114169.	6.6	24
46	Non-local damage modelling of concrete: a procedure for the determination of model parameters. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 867-891.	3.3	23
47	Constitutive modelling of progressive localised failure in porous sandstones under shearing at high confining pressures. International Journal of Rock Mechanics and Minings Sciences, 2017, 93, 179-195.	5.8	23
48	Uniaxial compressive behavior of partially saturated granular media under high strain rates. International Journal of Impact Engineering, 2017, 102, 156-168.	5.0	22
49	Block shear strength and behaviour of cold-reduced G450 steel bolted connections using DIC. Journal of Constructional Steel Research, 2019, 157, 151-160.	3.9	20
50	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
51	Effect of particle rolling resistance on drained and undrained behaviour of silty sand. Acta Geotechnica, 2021, 16, 2657-2682.	5.7	19
52	A thermodynamics-based formulation for constitutive modelling using damage mechanics and plasticity theory. Engineering Structures, 2017, 143, 22-39.	5.3	18
53	An approach to calculating large strain accumulation for discrete element simulations of granular media. International Journal for Numerical and Analytical Methods in Geomechanics, 2020, 44, 1525-1547.	3.3	17
54	Analysis of Essential Work of Rupture using Non-local Damage-plasticity Modelling. International Journal of Fracture, 2005, 135, L19-L26.	2.2	16

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55	Editorial note â€" On the aims & scope and priority areas in Materials & Design. Materials and Design, 2015, 88, 1377-1380.	7.0	16
56	An application of breakage mechanics for predicting energyâ€"size reduction relationships in comminution. Powder Technology, 2016, 287, 121-130.	4.2	16
57	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. International Journal of Impact Engineering, 2018, 116, 65-78.	5.0	16
58	A smoothed particle hydrodynamics framework for modelling multiphase interactions at meso-scale. Computational Mechanics, 2018, 62, 1071-1085.	4.0	16
59	A thermodynamics-based model for brittle to ductile behaviour and localised failure of porous rocks. International Journal of Solids and Structures, 2018, 152-153, 161-184.	2.7	16
60	On the partition of fracture energy in constitutive modelling of quasi-brittle materials. Engineering Fracture Mechanics, 2012, 79, 225-244.	4.3	15
61	The analysis of deformation size effects using multiple gauge length extensometry and the essential work of rupture concept. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 423, 192-198.	5.6	13
62	A One-Dimensional Nonlocal Damage-Plasticity Model for Ductile Materials. International Journal of Fracture, 2007, 144, 53-60.	2.2	13
63	Strain burst vulnerability criterion based on energy-release rate. Engineering Fracture Mechanics, 2020, 237, 107232.	4.3	12
64	Discrete element method investigation of particle size distribution effects on the flexural properties of cement-treated base. Computers and Geotechnics, 2019, 113, 103096.	4.7	11
65	Constitutive modelling of partially saturated soils: Hydro-mechanical coupling in a generic thermodynamics-based formulation. International Journal of Plasticity, 2021, 136, 102821.	8.8	11
66	DEM modelling of unsaturated seepage flows through porous media. Computational Particle Mechanics, 2022, 9, 135-152.	3.0	11
67	A stressâ€return algorithm for nonlocal constitutive models of softening materials. International Journal for Numerical Methods in Engineering, 2010, 82, 637-670.	2.8	10
68	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
69	SPH Simulation of Strain Localisation in Geomaterials Using a Visco-Plastic Constitutive Model. , 2017, , .		8
70	Hybrid Discrete-Continuum Approach to Model Hydromechanical Behavior of Soil during Desiccation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	8
71	Numerical predictions of post-flow behaviour of granular materials using an improved SPH model. Lecture Notes in Civil Engineering, 2020, , 895-900.	0.4	8
72	A computationally efficient SPH framework for unsaturated soils and its application to predicting the entire rainfall-induced slope failure process. Geotechnique, 0, , 1-19.	4.0	8

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73	Damage-Plasticity Modelling of Concrete: Calibration of Parameters using Separation of Fracture Energy. International Journal of Fracture, 2006, 139, 325-332.	2.2	7
74	Consistent tangent stiffness for local-nonlocal damage modelling of metals. Procedia Engineering, 2009, 1, 177-180.	1.2	7
75	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
76	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
77	A Mesh-Free Continuum Based Computational Approach to Modelling Rock Fracture. , 2017, , .		7
78	Metrics for evaluating linear features. Geophysical Research Letters, 2008, 35, .	4.0	6
79	Ligand-mediated adhesive mechanics of two static, deformed spheres. European Physical Journal E, 2016, 39, 95.	1.6	6
80	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. Soil Dynamics and Earthquake Engineering, 2019, 120, 245-256.	3.8	6
81	Analysis of transition from diffuse to localized failure in sandstone and concrete using Digital Image correlation. Engineering Fracture Mechanics, 2022, 267, 108465.	4.3	6
82	A Continuum Based Approach to Modelling Tensile Cracks in Soils. , 2017, , .		5
83	A combined theoretical-experimental approach for modelling ductile fracture of cold-reduced G450 steel sheet. International Journal of Solids and Structures, 2020, 200-201, 242-265.	2.7	5
84	Modelling the influence of fines content on the instability of silty sands considering grain scale interactions. International Journal of Plasticity, 2021, 143, 103020.	8.8	5
85	Capturing snapback in indirect tensile testing using AUSBIT - Adelaide University Snap-Back Indirect Tensile test. International Journal of Rock Mechanics and Minings Sciences, 2021, 147, 104897.	5.8	5
86	A Micromechanics Based Model for Cemented Granular Materials. Springer Series in Geomechanics and Geoengineering, 2013, , 527-534.	0.1	5
87	Meshfree SPH modelling of shrinkage induced cracking in clayey soils. Lecture Notes in Civil Engineering, 2020, , 889-894.	0.4	5
88	Coarse-grained modeling of multiphase interactions at microscale. Journal of Chemical Physics, 2018, 149, 124505.	3.0	4
89	Finite-Element Modelling of the Impact Behaviour of Aluminium Nacre-Like Composite. Applied Mechanics and Materials, 0, 566, 457-462.	0.2	3
90	Numerical Study of Particle Size Distribution Effect on the Failure of Asphalt Mixtures Using Discrete Element Method. , 2017, , .		3

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91	Discrete Element Modelling of the Mechanical Behaviour of a Highly Porous Foamed Concrete. , 2017, , .		3
92	Localised failure of geomaterials: how to extract localisation band behaviour from macro test data. Geotechnique, 2022, 72, 596-609.	4.0	3
93	Micromechanically inspired investigation of cemented granular materials: part IIâ€" from experiments to modelling and back. Acta Geotechnica, 2023, 18, 57-75.	5.7	3
94	Shear yielding and failure of cold-reduced G450 sheet steel. Journal of Constructional Steel Research, 2021, 185, 106844.	3.9	2
95	Influence of specimen dimensions on bursting behaviour of rocks under true triaxial loading condition. , 2017, , .		2
96	A combined numerical-experimental approach to analyzing fracture initiation and development in brittle rocks. Computers and Geotechnics, 2022, 145, 104663.	4.7	2
97	Modeling submerged granular flow across multiple regimes using the Eulerianâ€"Eulerian approach with shear-induced volumetric behavior. Physics of Fluids, 2022, 34, .	4.0	2
98	Crack Modelling Using the Material Point Method and a Strong Discontinuity Approach. Key Engineering Materials, 2012, 525-526, 513-516.	0.4	1
99	The Roles and Effects of Friction in Cohesive Zone Modelling: A Thermodynamics-Based Formulation. Lecture Notes in Civil Engineering, 2018, , 288-296.	0.4	1
100	Effect of Specimen Size on Localization using Digital Image Correlation. Lecture Notes in Mechanical Engineering, 2021, , 397-405.	0.4	1
101	Predicting onset and orientation of localisation bands using a cohesive-frictional model. Lecture Notes in Civil Engineering, 2020, , 311-316.	0.4	1
102	Steady state permeability profiles surrounding penetrating piles in crushable granular media. , 2010, , 789-795.		1
103	Failure Analysis of a Cold-Rolled Steel Tensile Specimen Using a Damage-Plasticity Model. Lecture Notes in Civil Engineering, 2018, , 131-141.	0.4	0