

Yves Renard

List of Publications by Year in descending order

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77
papers

1,731
citations

331259

21
h-index

301761

39
g-index

78
all docs

78
docs citations

78
times ranked

821
citing authors

#	ARTICLE	IF	CITATIONS
1	Shape optimization of a linearly elastic rolling structure under unilateral contact using Nitsche's method and cut finite elements. <i>Computational Mechanics</i> , 2022, 70, 205-224.	2.2	2
2	Nitsche method for contact with Coulomb friction: Existence results for the static and dynamic finite element formulations. <i>Journal of Computational and Applied Mathematics</i> , 2022, 416, 114557.	1.1	6
3	Nitsche-based models for the unilateral contact of plates. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2021, 55, S941-S967.	0.8	1
4	A thick-point approximation of a small body embedded in an elastic medium: justification with an asymptotic analysis. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2021, 101, e202000170.	0.9	0
5	GetFEM. <i>ACM Transactions on Mathematical Software</i> , 2021, 47, 1-31.	1.6	34
6	Frictional self-contact problem of elastic rods. <i>Journal of King Saud University - Science</i> , 2020, 32, 828-835.	1.6	8
7	A weighted finite element mass redistribution method for dynamic contact problems. <i>Journal of Computational and Applied Mathematics</i> , 2019, 345, 338-356.	1.1	3
8	A plane strain analysis of the elastostatic fields near the notch-tip of a Blatz-Ko material. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 103, 102309.	2.1	3
9	The anti-plane shear elasto-static fields near a crack terminating at an isotropic hyperelastic bi-material interface. <i>Mathematics and Mechanics of Solids</i> , 2019, 24, 2914-2930.	1.5	1
10	Nitsche-Based Finite Element Method for Contact with Coulomb Friction. <i>Lecture Notes in Computational Science and Engineering</i> , 2019, , 839-847.	0.1	8
11	Residual-based a posteriori error estimation for contact problems approximated by Nitsche's method. <i>IMA Journal of Numerical Analysis</i> , 2018, 38, 921-954.	1.5	20
12	An unbiased Nitsche's approximation of the frictional contact between two elastic structures. <i>Numerische Mathematik</i> , 2018, 139, 593-631.	0.9	23
13	Three-dimensional singular elastostatic fields in a cracked Neo-Hookean hyperelastic solid. <i>International Journal of Engineering Science</i> , 2018, 128, 1-11.	2.7	8
14	Multi-Scale Asymptotic Expansion for a Small Inclusion in Elastic Media. <i>Journal of Elasticity</i> , 2018, 131, 207-237.	0.9	1
15	Explicit Verlet time-integration for a Nitsche-based approximation of elastodynamic contact problems. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2018, 5, .	0.7	5
16	The singular elastostatic fields at the notch-tip of a compressible Ciarlet-Geymonat material. <i>Engineering Fracture Mechanics</i> , 2018, 199, 392-409.	2.0	3
17	A method of piecewise-smooth numerical branching. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2017, 97, 815-827.	0.9	1
18	An unbiased Nitsche's formulation of large deformation frictional contact and self-contact. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017, 325, 265-288.	3.4	31

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19	An Overview of Recent Results on Nitsche's Method for Contact Problems. Lecture Notes in Computational Science and Engineering, 2017, , 93-141.	0.1	32
20	Energy conservative finite element semi-discretization for vibro-impacts of plates on rigid obstacles. ESAIM: Mathematical Modelling and Numerical Analysis, 2016, 50, 1585-1613.	0.8	0
21	A robust finite element redistribution approach for elastodynamic contact problems. Applied Numerical Mathematics, 2016, 103, 48-71.	1.2	9
22	Singular elastostatic fields near the notch vertex of a Mooney-Rivlin hyperelastic body. International Journal of Solids and Structures, 2016, 80, 532-544.	1.3	11
23	A Nitsche finite element method for dynamic contact: 1. Space semi-discretization and time-marching schemes. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 481-502.	0.8	22
24	A Nitsche finite element method for dynamic contact: 2. Stability of the schemes and numerical experiments. ESAIM: Mathematical Modelling and Numerical Analysis, 2015, 49, 503-528.	0.8	15
25	Bifurcations in piecewise-smooth steady-state problems: abstract study and application to plane contact problems with friction. Computational Mechanics, 2015, 56, 39-62.	2.2	7
26	An unconstrained integral approximation of large sliding frictional contact between deformable solids. Computers and Structures, 2015, 153, 75-90.	2.4	23
27	Symmetric and non-symmetric variants of Nitsche's method for contact problems in elasticity: theory and numerical experiments. Mathematics of Computation, 2014, 84, 1089-1112.	1.1	58
28	The eXtended finite element method for cracked hyperelastic materials: A convergence study. International Journal for Numerical Methods in Engineering, 2014, 100, 222-242.	1.5	13
29	Convergence of mass redistribution method for the one-dimensional wave equation with a unilateral constraint at the boundary. ESAIM: Mathematical Modelling and Numerical Analysis, 2014, 48, 1147-1169.	0.8	12
30	A stabilized Lagrange multiplier method for the enriched finite-element approximation of Tresca contact problems of cracked elastic bodies. Computer Methods in Applied Mechanics and Engineering, 2014, 270, 178-200.	3.4	6
31	A continuation problem for computing solutions of discretised evolution problems with application to plane quasi-static contact problems with friction. Computer Methods in Applied Mechanics and Engineering, 2014, 280, 222-262.	3.4	10
32	A local projection stabilization of fictitious domain method for elliptic boundary value problems. Applied Numerical Mathematics, 2014, 76, 60-75.	1.2	9
33	Generalized Newton's methods for the approximation and resolution of frictional contact problems in elasticity. Computer Methods in Applied Mechanics and Engineering, 2013, 256, 38-55.	3.4	41
34	Vibro-impact of a plate on rigid obstacles: existence theorem, convergence of a scheme and numerical simulations. IMA Journal of Numerical Analysis, 2013, 33, 261-294.	1.5	5
35	Numerical convergence and stability of mixed formulation with X-FEM cut-off. European Journal of Computational Mechanics, 2012, 21, 160-173.	0.6	7
36	A stabilized Lagrange multiplier method for the enriched finite-element approximation of contact problems of cracked elastic bodies. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 813-839.	0.8	35

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37	An Improved a Priori Error Analysis for Finite Element Approximations of Signorini's Problem. SIAM Journal on Numerical Analysis, 2012, 50, 2400-2419.	1.1	26
38	A quasi-optimal a priori error estimate for the two-dimensional Signorini problem approximated by linear finite elements. Comptes Rendus Mathematique, 2012, 350, 325-328.	0.1	3
39	Stress intensity factors computation for bending plates with extended finite element method. International Journal for Numerical Methods in Engineering, 2012, 91, 909-928.	1.5	21
40	A Well-Posed Semi-Discretization of Elastodynamic Contact Problems with Friction. Quarterly Journal of Mechanics and Applied Mathematics, 2011, 64, 215-238.	0.5	6
41	A non-conformal eXtended Finite Element approach: Integral matching Xfem. Applied Numerical Mathematics, 2011, 61, 322-343.	1.2	20
42	Optimal convergence analysis for the extended finite element method. International Journal for Numerical Methods in Engineering, 2011, 86, 528-548.	1.5	49
43	An improvement within XFEM of the bonding between the enrichment area and the classical finite elements. European Journal of Computational Mechanics, 2010, 19, 177-187.	0.6	1
44	A stabilized Lagrange multiplier method for the finite element approximation of contact problems in elastostatics. Numerische Mathematik, 2010, 115, 101-129.	0.9	70
45	eXtended finite element methods for thin cracked plates with Kirchhoff's Love theory. International Journal for Numerical Methods in Engineering, 2010, 84, 1115-1138.	1.5	27
46	The singular dynamic method for constrained second order hyperbolic equations: Application to dynamic contact problems. Journal of Computational and Applied Mathematics, 2010, 234, 906-923.	1.1	27
47	A numerical approach for modelling thin cracked plates with XFEM. ESAIM: Proceedings and Surveys, 2009, 27, 240-253.	0.4	1
48	A Reduced Basis Enrichment for the eXtended Finite Element Method. Mathematical Modelling of Natural Phenomena, 2009, 4, 88-105.	0.9	12
49	A New Fictitious Domain Approach Inspired by the Extended Finite Element Method. SIAM Journal on Numerical Analysis, 2009, 47, 1474-1499.	1.1	83
50	Fixed point strategies for elastostatic frictional contact problems. Mathematical Methods in the Applied Sciences, 2008, 31, 415-441.	1.2	41
51	Crack tip enrichment in the XFEM using a cutoff function. International Journal for Numerical Methods in Engineering, 2008, 75, 629-646.	1.5	79
52	Mass redistribution method for finite element contact problems in elastodynamics. European Journal of Mechanics, A/Solids, 2008, 27, 918-932.	2.1	66
53	Spider XFEM, an extended finite element variant for partially unknown crack-tip displacement. European Journal of Computational Mechanics, 2008, 17, 625-636.	0.6	18
54	An Error Estimate for the Signorini Problem with Coulomb Friction Approximated by Finite Elements. SIAM Journal on Numerical Analysis, 2007, 45, 2012-2031.	1.1	23

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55	Study of Some Optimal XFEM Type Methods. , 2007, , 27-38.		2
56	Some improvements of Xfem for cracked domains. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2007, , 171-184.	0.1	2
57	On the discretization of contact problems in elastodynamics. , 2006, , 31-38.		32
58	A Uniqueness Criterion for the Signorini Problem with Coulomb Friction. SIAM Journal on Mathematical Analysis, 2006, 38, 452-467.	0.9	30
59	A quasi-optimal convergence result for fracture mechanics with XFEM. Comptes Rendus Mathematique, 2006, 342, 527-532.	0.1	19
60	Comparison of two approaches for the discretization of elastodynamic contact problems. Comptes Rendus Mathematique, 2006, 342, 791-796.	0.1	9
61	Hybrid discretization of the Signorini problem with Coulomb friction. Theoretical aspects and comparison of some numerical solvers. Applied Numerical Mathematics, 2006, 56, 163-192.	1.2	58
62	Une méthode d'éléments finis d'ordre supérieur optimale. European Journal of Computational Mechanics, 2006, 15, 233-244.	0.6	0
63	A energy conserving approximation for elastodynamic contact problems. , 2006, , 323-323.		1
64	Local uniqueness results for the discrete friction problem. Lecture Notes in Applied and Computational Mechanics, 2006, , 129-136.	2.0	1
65	A uniqueness criterion for the Signorini problem with Coulomb friction. Lecture Notes in Applied and Computational Mechanics, 2006, , 161-169.	2.0	5
66	High-order extended finite element method for cracked domains. International Journal for Numerical Methods in Engineering, 2005, 64, 354-381.	1.5	361
67	A mixed formulation for the Signorini problem in nearly incompressible elasticity. Applied Numerical Mathematics, 2005, 54, 1-22.	1.2	10
68	Local uniqueness and continuation of solutions for the discrete Coulomb friction problem in elastostatics. Quarterly of Applied Mathematics, 2005, 63, 553-573.	0.5	16
69	The treatment of the locking phenomenon for a general class of variational inequalities. Journal of Computational and Applied Mathematics, 2004, 170, 121-143.	1.1	1
70	Surface perturbation of an elastodynamic contact problem with friction. European Journal of Applied Mathematics, 2003, 14, 465-483.	1.4	9
71	Hybrid finite element methods for the Signorini problem. Mathematics of Computation, 2003, 72, 1117-1146.	1.1	75
72	Numerical analysis of a one-dimensional elastodynamic model of dry friction and unilateral contact. Computer Methods in Applied Mechanics and Engineering, 2001, 190, 2031-2050.	3.4	4

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73	Singular perturbation approach to an elastic dry friction problem with non-monotone coefficient. Quarterly of Applied Mathematics, 2000, 58, 303-324.	0.5	3
74	Models and simulations of dynamic frictional contact of a beam. Computer Methods in Applied Mechanics and Engineering, 1999, 177, 259-272.	3.4	19
75	Perturbation singuli�re d'un probl�me de frottement sec non monotone. Comptes Rendus Mathematique, 1998, 326, 131-136.	0.5	1
76	On the dynamic sliding with friction of a rigid block and of an infinite elastic slab. Physics of the Earth and Planetary Interiors, 1996, 96, 15-23.	0.7	11
77	A fictitious domain method for frictionless contact problems in elasticity using Nitsche�s method. SMAI Journal of Computational Mathematics, 0, 2, 19-50.	0.0	16