

# Gilles A Francfort

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7154313/publications.pdf>

Version: 2024-02-01

27  
papers

2,076  
citations

840776

11  
h-index

642732

23  
g-index

27  
all docs

27  
docs citations

27  
times ranked

1066  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Variational Approach to Fracture. <i>Journal of Elasticity</i> , 2008, 91, 5-148.	1.9	1,167
2	Quasistatic Crack Growth in Nonlinear Elasticity. <i>Archive for Rational Mechanics and Analysis</i> , 2005, 176, 165-225.	2.4	249
3	Existence and convergence for quasi-static evolution in brittle fracture. <i>Communications on Pure and Applied Mathematics</i> , 2003, 56, 1465-1500.	3.1	144
4	The Variational Approach to Fracture. , 2008, , .		123
5	Revisiting nucleation in the phase-field approach to brittle fracture. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 142, 104027.	4.8	86
6	Fracture and healing of elastomers: A phase-transition theory and numerical implementation. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 112, 523-551.	4.8	48
7	Revisiting Energy Release Rates in Brittle Fracture. <i>Journal of Nonlinear Science</i> , 2010, 20, 395-424.	2.1	37
8	Small-strain heterogeneous elastoplasticity revisited. <i>Communications on Pure and Applied Mathematics</i> , 2012, 65, 1185-1241.	3.1	33
9	Quasi-static Evolution in Nonassociative Plasticity: The Cap Model. <i>SIAM Journal on Mathematical Analysis</i> , 2012, 44, 245-292.	1.9	32
10	Korn-Poincaré inequalities for functions with a small jump set. <i>Indiana University Mathematics Journal</i> , 2016, 65, 1373-1399.	0.9	31
11	Approximation of a Brittle Fracture Energy with a Constraint of Non-interpenetration. <i>Archive for Rational Mechanics and Analysis</i> , 2018, 228, 867-889.	2.4	31
12	A Critical Revisiting of Finite Elasto-Plasticity. <i>SIAM Journal on Mathematical Analysis</i> , 2015, 47, 526-565.	1.9	16
13	Homogenisation of a class of fourth order equations with application to incompressible elasticity. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 1992, 120, 25-46.	1.2	11
14	Loss of ellipticity through homogenization in linear elasticity. <i>Mathematical Models and Methods in Applied Sciences</i> , 2015, 25, 905-928.	3.3	11
15	Variational fracture: twenty years after. <i>International Journal of Fracture</i> , 2022, 237, 3-13.	2.2	11
16	The taming of plastic slips in von Mises elasto-plasticity. <i>Interfaces and Free Boundaries</i> , 2016, 17, 497-516.	0.8	7
17	The elasto-plastic exquisite corpse: A Suquet legacy. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 97, 125-139.	4.8	7
18	Isotropy prohibits the loss of strong ellipticity through homogenization in linear elasticity. <i>Comptes Rendus Mathématique</i> , 2016, 354, 1139-1144.	0.3	6

#	ARTICLE	IF	CITATIONS
19	Recovering convexity in non-associated plasticity. Comptes Rendus - Mecanique, 2018, 346, 198-205.	2.1	5
20	Enhancement of elasto-dielectrics by homogenization of active charges. Journal Des Mathematiques Pures Et Appliquees, 2021, 156, 392-419.	1.6	5
21	A case study for uniqueness of elasto-plastic evolutions: The bi-axial test. Journal Des Mathematiques Pures Et Appliquees, 2016, 105, 198-227.	1.6	4
22	A Two-Dimensional Labile Aether Through Homogenization. Communications in Mathematical Physics, 2019, 367, 599-628.	2.2	4
23	Quasi-Static Evolution for the Armstrong-Frederick Hardening-Plasticity Model. Applied Mathematics Research EXpress, 0, , .	1.0	3
24	The role of a vanishing interfacial layer in perfect elasto-plasticity. Chinese Annals of Mathematics Series B, 2015, 36, 813-828.	0.4	2
25	Quasistatic evolution in non-associative plasticity revisited. Calculus of Variations and Partial Differential Equations, 2018, 57, 1.	1.7	2
26	A note on the derivation of rigid-plastic models. Nonlinear Differential Equations and Applications, 2016, 23, 1.	0.8	1
27	Un r�sum� de la th�orie variationnelle de la rupture. S�minaire Laurent Schwartz â€” EDP Et Applications, 0, , 1-11.	0.0	0