

# Gilles Grandjean

## List of Publications by Year in descending order

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71  
papers

2,364  
citations

218677

26  
h-index

214800

47  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2448  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evolution tectonique mÃ©so-cÃ©nozoÃ©que du bassin de Paris: contraintes stratigraphiques 3D. <i>Geodinamica Acta</i> , 2000, 13, 189-245.	2.2	160
2	Slope instabilities in Dolomieu crater, RÃ©union Island: From seismic signals to rockfall characteristics. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	137
3	GPR data processing for 3D fracture mapping in a marble quarry (Thassos, Greece). <i>Journal of Applied Geophysics</i> , 1996, 36, 19-30.	2.1	126
4	Meso-Cenozoic geodynamic evolution of the Paris Basin: 3D stratigraphic constraints. <i>Geodinamica Acta</i> , 2000, 13, 189-245.	2.2	119
5	The potential of seismic methods for detecting cavities and buried objects: experimentation at a test site. <i>Journal of Applied Geophysics</i> , 2004, 56, 93-106.	2.1	102
6	Two-dimensional elastic full waveform inversion using Born and Rytov formulations in the frequency domain. <i>Geophysical Journal International</i> , 2007, 168, 605-633.	2.4	100
7	Evaluation of GPR techniques for civil-engineering applications: study on a test site. <i>Journal of Applied Geophysics</i> , 2000, 45, 141-156.	2.1	99
8	Shallow-structure characterization by 2D elastic full-waveform inversion. <i>Geophysics</i> , 2011, 76, R81-R93.	2.6	98
9	Hydrological response of weathered clay-shale slopes: water infiltration monitoring with time-lapse electrical resistivity tomography. <i>Hydrological Processes</i> , 2012, 26, 2106-2119.	2.6	87
10	Landslide databases in the Geological Surveys of Europe. <i>Landslides</i> , 2018, 15, 359-379.	5.4	85
11	Characterizing landslides through geophysical data fusion: Example of the La Valette landslide (France). <i>Engineering Geology</i> , 2012, 128, 23-29.	6.3	67
12	On Water Detection in the Martian Subsurface Using Sounding Radar. <i>Icarus</i> , 2001, 154, 244-257.	2.5	66
13	Numerical Modeling of Surface Waves Over Shallow Cavities. <i>Journal of Environmental and Engineering Geophysics</i> , 2005, 10, 111-121.	0.5	64
14	Subsurface imaging in south-central egypt using low-frequency radar: bir safsaf revisited. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2003, 41, 1672-1684.	6.3	62
15	Surface-wave Inversion Limitations from Laser-Doppler Physical Modeling. <i>Journal of Environmental and Engineering Geophysics</i> , 2005, 10, 151-162.	0.5	60
16	Relationship between profile length and roughness variables for natural surfaces. <i>International Journal of Remote Sensing</i> , 2000, 21, 3375-3381.	2.9	54
17	Frequency-wavenumber modelling and migration of 2D GPR data in moderately heterogeneous dispersive media. <i>Geophysical Prospecting</i> , 1998, 46, 287-301.	1.9	47
18	Structural study of the Ballandaz landslide (French Alps) using geophysical imagery. <i>Journal of Applied Geophysics</i> , 2011, 75, 531-542.	2.1	47

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19	Subsurface structures detection by combining L-band polarimetric SAR and GPR data: example of the Pyla Dune (France). <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2001, 39, 1245-1258.	6.3	46
20	Caractérisation de la structure interne et de l'état hydrique de glissements argilo-marneux par tomographie géophysique : l'exemple du glissement-coulée de Super-Sauze (Alpes du Sud, France). <i>Comptes Rendus - Geoscience</i> , 2006, 338, 587-595.	1.2	39
21	Geophysical data fusion by fuzzy logic for imaging the mechanical behaviour of mudslides. <i>Bulletin - Societe Geologique De France</i> , 2007, 178, 127-136.	2.2	33
22	Crustal velocity models for the Archean Abitibi greenstone belt from seismic refraction data. <i>Canadian Journal of Earth Sciences</i> , 1995, 32, 149-166.	1.3	30
23	The application of an innovative inverse model for understanding and predicting landslide movements (Salazie cirque landslides, Reunion Island). <i>Landslides</i> , 2014, 11, 343-355.	5.4	30
24	A phase signature for detecting wet subsurface structures using polarimetric L-band SAR. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2004, 42, 1683-1694.	6.3	29
25	Improved estimation of soil clay content by the fusion of remote hyperspectral and proximal geophysical sensing. <i>Journal of Applied Geophysics</i> , 2015, 116, 135-145.	2.1	29
26	Improvement of landslide hazard assessments for regulatory zoning in France: STATE-OF-THE-ART perspectives and considerations. <i>International Journal of Disaster Risk Reduction</i> , 2020, 47, 101562.	3.9	29
27	Thermo-mechanical approach to validation of deep crustal and lithospheric structures inferred from multidisciplinary data: application to the Western and Northern Alps. <i>Terra Nova</i> , 1999, 11, 124-131.	2.1	28
28	Characterization of a landslide geometry using 3D seismic refraction traveltime tomography: The La Valette landslide case history. <i>Journal of Applied Geophysics</i> , 2012, 86, 120-132.	2.1	28
29	Spatio-temporal evolution of rockfall activity from 2007 to 2011 at the Piton de la Fournaise volcano inferred from seismic data. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 333-334, 36-52.	2.1	27
30	JaTS: a fully portable seismic tomography software based on Fresnel wavepaths and a probabilistic reconstruction approach. <i>Computers and Geosciences</i> , 2004, 30, 925-935.	4.2	26
31	Downscaling scenarios of future land use and land cover changes using a participatory approach: an application to mountain risk assessment in the Pyrenees (France). <i>Regional Environmental Change</i> , 2017, 17, 2293-2307.	2.9	25
32	Airborne and ground-based data sources for characterizing the morpho-structure of a coastal landslide. <i>Geomorphology</i> , 2014, 217, 140-151.	2.6	24
33	Quasi-Newton inversion of seismic first arrivals using source finite bandwidth assumption: Application to subsurface characterization of landslides. <i>Journal of Applied Geophysics</i> , 2012, 87, 94-106.	2.1	23
34	Combining seismic and electric methods for predicting bedrock depth along a Mediterranean soil toposequence. <i>Geoderma</i> , 2012, 170, 39-47.	5.1	23
35	Performances of ground penetrating radars in arid volcanic regions: Consequences for Mars subsurface exploration. <i>Geophysical Research Letters</i> , 2001, 28, 911-914.	4.0	22
36	Monitoring water flow in a clay-shale hillslope from geophysical data fusion based on a fuzzy logic approach. <i>Comptes Rendus - Geoscience</i> , 2009, 341, 937-948.	1.2	21

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37	Electrical and thermal behavior of unsaturated soils: experimental results. <i>Journal of Applied Geophysics</i> , 2016, 128, 115-122.	2.1	21
38	Imaging subsurface objects by seismic P-wave tomography: numerical and experimental validations. <i>Near Surface Geophysics</i> , 2006, 4, 279-287.	1.2	20
39	Apport de l'imagerie satellitaire radar pour l'exploration géologique en zones arides. <i>Comptes Rendus - Geoscience</i> , 2005, 337, 719-728.	1.2	18
40	Modelling landslide hazards under global changes: the case of a Pyrenean valley. <i>Natural Hazards and Earth System Sciences</i> , 2021, 21, 147-169.	3.6	17
41	A seismic multi-approach method for characterizing contaminated sites. <i>Journal of Applied Geophysics</i> , 2006, 58, 87-98.	2.1	15
42	Radar Unix: a complete package for GPR data processing. <i>Computers and Geosciences</i> , 1999, 25, 141-149.	4.2	14
43	Topography Curvature Effects in Thin-Layer Models for Gravity-Driven Flows Without Bed Erosion. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF005657.	2.8	13
44	Refraction/wide-angle reflection investigation of the Cadomian crust between northern Brittany and the Channel Islands. <i>Tectonophysics</i> , 2001, 331, 45-64.	2.2	12
45	Operational Estimation of Landslide Runout: Comparison of Empirical and Numerical Methods. <i>Geosciences (Switzerland)</i> , 2020, 10, 424.	2.2	11
46	Integrated geophysical interpretation of crustal structures in the northern Abitibi belt: constraints from seismic amplitude analysis. <i>Canadian Journal of Earth Sciences</i> , 1996, 33, 1343-1362.	1.3	10
47	Surface and subsurface structural mapping using low frequency radar: A synthesis of the Mauritanian and Egyptian experiments. <i>Journal of African Earth Sciences</i> , 2006, 44, 220-228.	2.0	10
48	Characterisation of a landslide fissure pattern by integrating seismic azimuth tomography and geotechnical testing. <i>Hydrological Processes</i> , 2012, 26, 2120-2127.	2.6	9
49	Montmorillonite Estimation in Clay-Quartz-Calcite Samples from Laboratory SWIR Imaging Spectroscopy: A Comparative Study of Spectral Preprocessings and Unmixing Methods. <i>Remote Sensing</i> , 2020, 12, 1723.	4.0	9
50	Age of river basins in Guadeloupe impacting chemical weathering rates and land use. <i>Applied Geochemistry</i> , 2011, 26, S123-S126.	3.0	7
51	Digital Soil Mapping: Approaches to Integrate Sensing Techniques to the Prediction of Key Soil Properties. <i>Vadose Zone Journal</i> , 2013, 12, 1-4.	2.2	7
52	Deterministic and probabilistic analyses of the 3D response of masonry buildings to imposed settlement troughs. <i>Georisk</i> , 2020, 14, 260-279.	3.5	7
53	A Novel Multi-Risk Assessment Web-Tool for Evaluating Future Impacts of Global Change in Mountainous Areas. <i>Climate</i> , 2018, 6, 92.	2.8	7
54	Hydrogeological assessment of a deep-seated coastal landslide based on a multi-disciplinary approach. <i>Geomorphology</i> , 2020, 371, 107440.	2.6	5

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55	A Volume Scattering Model for Coupled Interpretation of Ground-Penetrating Radar (GPR) and Synthetic Aperture Radar (SAR). <i>Subsurface Sensing Technologies and Applications</i> , 2004, 5, 151-164.	0.9	4
56	Assessment of vulnerability to erosion: Digital mapping of a loess cover thickness and stiffness using spectral analysis of seismic surface-waves. <i>Geoderma</i> , 2012, 173-174, 162-172.	5.1	4
57	A GIS-based Vehicle Mobility Estimator for Operational Contexts. <i>Transactions in GIS</i> , 2013, 17, 78-95.	2.3	4
58	Targeting and mapping expansive soils (Loiret, France): geometrical analysis of laboratory soil spectra in the short-wave infrared domain (1100-2500 nm). <i>Bulletin - Societe Geologique De France</i> , 2016, 187, 169-181.	2.2	4
59	<title>Subsurface imaging with low-frequency SAR field validation in France and Egypt using ground-penetrating radar</title>. , 2002, 4758, 217.		3
60	Clay Minerals Mapping from Imaging Spectroscopy. , 2019, , .		3
61	Hydromechanical assessment of a complex landslide through geophysics and numerical modeling: Toward an upgrade for the Villerville landslide (Normandy, France). <i>Engineering Geology</i> , 2022, 297, 106516.	6.3	3
62	<title>Searching out mammoth remains in permafrost (Taimyr, Siberia) using ground-penetrating radar</title>. , 2002, , .		2
63	A multi-method geophysical approach based on fuzzy logic for an integrated interpretation of landslides: application to the French Alps. <i>Near Surface Geophysics</i> , 2012, 10, 601-611.	1.2	2
64	Integration of Geohazards into Urban and Land-Use Planning. Towards a Landslide Directive. The EuroGeoSurveys Questionnaire. , 2017, , 1067-1072.		2
65	Inversion Of Surface Waves In Complex Structures. , 2008, , .		2
66	Migray: A C program for ray-tracing migration. <i>Computers and Geosciences</i> , 1993, 19, 601-611.	4.2	1
67	<title>Water detection in the Martian subsurface</title>. , 2002, , .		1
68	The ECORS system: A mobility decision-making tool based on Earth observation data. , 2009, , .		1
69	Response to: "A modified reconstruction algorithm for Fresnel volume tomography" by J. Zhang (Letter to the Editor). <i>Computers and Geosciences</i> , 2009, 35, 2368.	4.2	0
70	4. Diffractions Observed on Seismic Data. , 2016, , 499-653.		0
71	Vers un modèle hydrologique simplifié pour les études géomorphologiques spatiales. <i>Houille Blanche</i> , 2010, 96, 53-57.	0.3	0