

Don Vasco

List of Publications by Year in descending order

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143
papers

4,527
citations

94415

37
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114455

63
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148
all docs

148
docs citations

148
times ranked

2391
citing authors

#	ARTICLE	IF	CITATIONS
1	Coupled reservoir-geomechanical analysis of CO ₂ injection and ground deformations at In Salah, Algeria. <i>International Journal of Greenhouse Gas Control</i> , 2010, 4, 225-230.	4.6	301
2	Satellite-based measurements of surface deformation reveal fluid flow associated with the geological storage of carbon dioxide. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	249
3	Estimation of reservoir properties using transient pressure data: An asymptotic approach. <i>Water Resources Research</i> , 2000, 36, 3447-3465.	4.2	178
4	Direct reservoir parameter estimation using joint inversion of marine seismic AVA and CSEM data. <i>Geophysics</i> , 2006, 71, C1-C13.	2.6	143
5	Whole Earth structure estimated from seismic arrival times. <i>Journal of Geophysical Research</i> , 1998, 103, 2633-2671.	3.3	131
6	Reservoir monitoring and characterization using satellite geodetic data: Interferometric synthetic aperture radar observations from the Krechba field, Algeria. <i>Geophysics</i> , 2008, 73, WA113-WA122.	2.6	127
7	Integrating Dynamic Data Into High-Resolution Reservoir Models Using Streamline-Based Analytic Sensitivity Coefficients. <i>SPE Journal</i> , 1999, 4, 389-399.	3.1	126
8	A full field simulation of the in Salah gas production and CO ₂ storage project using a coupled geo-mechanical and thermal fluid flow simulator. <i>Energy Procedia</i> , 2011, 4, 3290-3297.	1.8	123
9	Tomographic inversions for mantle P wave velocity structure based on the minimization of L_2 and L_1 norms of International Seismological Centre Travel Time Residuals. <i>Journal of Geophysical Research</i> , 1993, 98, 699-734.	3.3	110
10	Beyond ray tomography: Wavepaths and Fresnel volumes. <i>Geophysics</i> , 1995, 60, 1790-1804.	2.6	109
11	A Bayesian model for gas saturation estimation using marine seismic AVA and CSEM data. <i>Geophysics</i> , 2007, 72, WA85-WA95.	2.6	99
12	Asymptotic solutions for solute transport: A formalism for tracer tomography. <i>Water Resources Research</i> , 1999, 35, 1-16.	4.2	95
13	A multidisciplinary fractured rock characterization study at Raymond field site, Raymond, CA. <i>Journal of Hydrology</i> , 2000, 236, 17-34.	5.4	79
14	Coupled reservoir-geomechanical analysis of CO ₂ injection at In Salah, Algeria. <i>Energy Procedia</i> , 2009, 1, 1847-1854.	1.8	76
15	Robust inversion of IASP91 travel time residuals for mantle P and S velocity structure, earthquake mislocations, and station corrections. <i>Journal of Geophysical Research</i> , 1994, 99, 13727-13755.	3.3	73
16	Resolution and uncertainty in hydrologic characterization. <i>Water Resources Research</i> , 1997, 33, 379-397.	4.2	73
17	Estimating permeability from quasi-static deformation: Temporal variations and arrival-time inversion. <i>Geophysics</i> , 2008, 73, O37-O52.	2.6	70
18	The Northwest Geysers EGS Demonstration Project, California: Pre-stimulation Modeling and Interpretation of the Stimulation. <i>Mathematical Geosciences</i> , 2015, 47, 3-29.	2.4	67

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19	Geodetic imaging: reservoir monitoring using satellite interferometry. <i>Geophysical Journal International</i> , 2002, 149, 555-571.	2.4	66
20	Monitoring the geologic storage of carbon dioxide using multicomponent SAR interferometry. <i>Geophysical Journal International</i> , 2013, 193, 197-208.	2.4	62
21	Using surface displacement and strain observations to determine deformation at depth, with an application to Long Valley Caldera, California. <i>Journal of Geophysical Research</i> , 1988, 93, 3232-3242.	3.3	59
22	A Streamline Approach for Integrating Transient Pressure Data Into High-Resolution Reservoir Models. <i>SPE Journal</i> , 2001, 6, 273-282.	3.1	57
23	Ground-penetrating radar velocity tomography in heterogeneous and anisotropic media. <i>Geophysics</i> , 1997, 62, 1758-1773.	2.6	55
24	Using surface deformation to image reservoir dynamics. <i>Geophysics</i> , 2000, 65, 132-147.	2.6	54
25	The Northwest Geysers EGS Demonstration Project, California – Part 2: Modeling and interpretation. <i>Geothermics</i> , 2016, 63, 120-138.	3.4	51
26	Integrating Multiphase Production History in Stochastic Reservoir Characterization. <i>SPE Formation Evaluation</i> , 1997, 12, 149-156.	0.5	50
27	Coupled non-isothermal, multiphase fluid flow, and geomechanical modeling of ground surface deformations and potential for induced micro-seismicity at the In Salah CO2 storage operation. <i>Energy Procedia</i> , 2011, 4, 3542-3549.	1.8	50
28	Monitoring deformation at the Geysers Geothermal Field, California using C-band and X-band interferometric synthetic aperture radar. <i>Geophysical Research Letters</i> , 2013, 40, 2567-2572.	4.0	50
29	Lateral variations in mantle velocity structure and discontinuities determined from P, PP, S, SS, and SS-Sd Stravel time residuals. <i>Journal of Geophysical Research</i> , 1995, 100, 24037-24059.	3.3	49
30	Role of agricultural activity on land subsidence in the San Joaquin Valley, California. <i>Journal of Hydrology</i> , 2019, 569, 462-469.	5.4	48
31	A Multiscale Approach to Production-Data Integration Using Streamline Models. <i>SPE Journal</i> , 2001, 6, 182-192.	3.1	47
32	Seismic imaging of reservoir flow properties: Time-lapse amplitude changes. <i>Geophysics</i> , 2004, 69, 1425-1442.	2.6	46
33	Resolution and variance operators of gravity and gravity gradiometry. <i>Geophysics</i> , 1989, 54, 889-899.	2.6	44
34	A 3D hydrogeological and geomechanical model of an Enhanced Geothermal System at The Geysers, California. <i>Geothermics</i> , 2014, 51, 240-252.	3.4	43
35	A coupled inversion of pressure and surface displacement. <i>Water Resources Research</i> , 2001, 37, 3071-3089.	4.2	42
36	Wavepath traveltimes tomography. <i>Geophysical Journal International</i> , 1993, 115, 1055-1069.	2.4	41

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37	Inversion of airborne gravity gradient data, southwestern Oklahoma. <i>Geophysics</i> , 1991, 56, 90-101.	2.6	39
38	Resolution, uncertainty, and whole Earth tomography. <i>Journal of Geophysical Research</i> , 2003, 108, ESE 9-1-ESE 9-26.	3.3	38
39	Inverse modeling of partitioning interwell tracer tests: A streamline approach. <i>Water Resources Research</i> , 2002, 38, 15-1-15-17.	4.2	37
40	Reservoir-parameter identification using minimum relative entropy-based Bayesian inversion of seismic AVA and marine CSEM data. <i>Geophysics</i> , 2006, 71, O77-O88.	2.6	37
41	Detailed Characterization of a Fractured Limestone Formation by Use of Stochastic Inverse Approaches. <i>SPE Formation Evaluation</i> , 1995, 10, 133-140.	0.5	36
42	Monitoring of Fluid Injection and Soil Consolidation Using Surface Tilt Measurements. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 1998, 124, 29-37.	3.0	36
43	On the use of quasi-static deformation to understand reservoir fluid flow. <i>Geophysics</i> , 2005, 70, O13-O27.	2.6	35
44	Nonuniqueness in traveltimes tomography: Ensemble inference and cluster analysis. <i>Geophysics</i> , 1996, 61, 1209-1227.	2.6	34
45	Resolving seismic anisotropy: Sparse matrix methods for geophysical inverse problems. <i>Geophysics</i> , 1998, 63, 970-983.	2.6	34
46	Rapid inverse modeling of pressure interference tests using trajectory-based traveltimes and amplitude sensitivities. <i>Water Resources Research</i> , 2006, 42, .	4.2	34
47	Viscoacoustic crosswell imaging using asymptotic waveforms. <i>Geophysics</i> , 2001, 66, 861-870.	2.6	32
48	Utilizing the onset of time-lapse changes: a robust basis for reservoir monitoring and characterization. <i>Geophysical Journal International</i> , 2014, 197, 542-556.	2.4	32
49	Satellite-based monitoring of groundwater depletion in California's Central Valley. <i>Scientific Reports</i> , 2019, 9, 16053.	3.3	32
50	Numerical trajectory calculations for the efficient inversion of transient flow and tracer observations. <i>Water Resources Research</i> , 2004, 40, .	4.2	31
51	Crustal deformation and source models of the Yellowstone volcanic field from geodetic data. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	31
52	On the Sensitivity and Spatial Resolution of Transient Pressure and Tracer Data For Heterogeneity Characterization. <i>SPE Formation Evaluation</i> , 1997, 12, 137-144.	0.5	30
53	Global Earth structure: inference and assessment. <i>Geophysical Journal International</i> , 2002, 137, 381-407.	2.4	30
54	A simultaneous inversion of seismic traveltimes and amplitudes for velocity and attenuation. <i>Geophysics</i> , 1996, 61, 1738-1757.	2.6	29

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55	Deriving source-time functions using principal component analysis. Bulletin of the Seismological Society of America, 1989, 79, 711-730.	2.3	29
56	Ensemble inference in geophysical inverse problems. Geophysical Journal International, 1993, 115, 711-728.	2.4	28
57	Interpretation and inversion of low-frequency head observations. Water Resources Research, 2006, 42, .	4.2	28
58	Seismic imaging of reservoir flow properties: Time-lapse pressure changes. Geophysics, 2004, 69, 511-521.	2.6	27
59	Inversion for sources of crustal deformation and gravity change at the Yellowstone Caldera. Journal of Geophysical Research, 1990, 95, 19839-19856.	3.3	26
60	Singularity and Branching: A Path-Following Formalism For Geophysical Inverse Problems. Geophysical Journal International, 1994, 119, 809-830.	2.4	24
61	Bounding seismic velocities using a tomographic method. Geophysics, 1991, 56, 472-482.	2.6	24
62	Inversion of pressure observations: an integral formulation. Journal of Hydrology, 2001, 253, 27-40.	5.4	23
63	Formal inversion of ISC arrival times for mantle P-velocity structure. Geophysical Journal International, 1993, 113, 586-606.	2.4	22
64	Fluid pressure arrival-time tomography: Estimation and assessment in the presence of inequality constraints with an application to production at the Krechba field, Algeria. Geophysics, 2010, 75, O39-O55.	2.6	22
65	Monitoring production using surface deformation: the Hijiori test site and the Okuaizu geothermal field, Japan. Geothermics, 2002, 31, 303-342.	3.4	21
66	Characterization of the geothermal system beneath the Northwest Geysers steam field, California, from seismicity and velocity patterns. Geothermics, 1995, 24, 471-487.	3.4	18
67	Inversion of Waveforms For Extreme Source Models With an application to the Isotropic Moment Tensor Component. Geophysical Journal International, 1989, 97, 1-18.	2.4	16
68	Asymptotics, Saturation Fronts, and High Resolution Reservoir Characterization. Transport in Porous Media, 2001, 42, 315-350.	2.6	16
69	Estimation of flow properties using surface deformation and head data: A trajectory-based approach. Water Resources Research, 2004, 40, .	4.2	16
70	Streamline-Based Time-Lapse-Seismic-Data Integration Incorporating Pressure and Saturation Effects. SPE Journal, 2017, 22, 1261-1279.	3.1	16
71	Changes in geophysical properties caused by fluid injection into porous rocks: analytical models. Geophysical Prospecting, 2017, 65, 766-790.	1.9	16
72	Regularization and trade-off associated with nonlinear geophysical inverse problems: penalty homotopies. Inverse Problems, 1998, 14, 1033-1052.	2.0	15

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73	Computation of uniform wave forms using complex rays. <i>Physical Review E</i> , 2006, 73, 036704.	2.1	15
74	Groups, algebras, and the non-linearity of geophysical inverse problems. <i>Geophysical Journal International</i> , 1997, 131, 9-23.	2.4	14
75	Characterization of a fracture zone using seismic attributes at the In Salah CO2 storage project. <i>Interpretation</i> , 2015, 3, SM37-SM46.	1.1	14
76	Using Sentinel-1 and GRACE satellite data to monitor the hydrological variations within the Tulare Basin, California. <i>Scientific Reports</i> , 2022, 12, 3867.	3.3	14
77	Extremal inversion of static earth displacements due to volume sources. <i>Geophysical Journal International</i> , 1985, 80, 223-239.	2.4	13
78	On the propagation of a coupled saturation and pressure front. <i>Water Resources Research</i> , 2011, 47, .	4.2	13
79	Calculating Trajectories Associated With Solute Transport in a Heterogeneous Medium. <i>Water Resources Research</i> , 2018, 54, 6890-6908.	4.2	13
80	Advanced monitoring and simulation for underground gas storage risk management. <i>Journal of Petroleum Science and Engineering</i> , 2022, 208, 109763.	4.2	13
81	Joint inversion of seismic AVO and EM data for gas saturation estimation using a sampling-based stochastic model. , 2004, , .		12
82	The Seismic Response to Injected Carbon Dioxide: Comparing Observations to Estimates Based Upon Fluid Flow Modeling. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 6880-6907.	3.4	12
83	Reservoir characterization based upon the onset of time-lapse amplitude changes. <i>Geophysics</i> , 2015, 80, M1-M14.	2.6	11
84	Invariance, groups, and non-uniqueness: the discrete case. <i>Geophysical Journal International</i> , 2007, 168, 473-490.	2.4	10
85	Modelling broad-band poroelastic propagation using an asymptotic approach. <i>Geophysical Journal International</i> , 2009, 179, 299-318.	2.4	10
86	History Matching of Frequent Seismic Surveys Using Seismic Onset Times at the Peace River Field, Canada. , 2017, , .		10
87	An Extended Trajectory Mechanics Approach for Calculating the Path of a Pressure Transient: Derivation and Illustration. <i>Water Resources Research</i> , 2018, 54, 2642-2660.	4.2	10
88	Imaging of a fluid injection process using geophysical data – A didactic example. <i>Geophysics</i> , 2020, 85, W1-W16.	2.6	10
89	Acoustic crosswell imaging using asymptotic waveforms. <i>Geophysics</i> , 2000, 65, 1569-1582.	2.6	10
90	An algebraic formulation of geophysical inverse problems. <i>Geophysical Journal International</i> , 2000, 142, 970-990.	2.4	9

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91	Zeroth-order inversion of transient pressure observations. <i>Inverse Problems</i> , 2008, 24, 025013.	2.0	9
92	Modelling flow in a pressure-sensitive, heterogeneous medium. <i>Geophysical Journal International</i> , 2009, 179, 972-989.	2.4	8
93	Utilizing crosswell, single well and pressure transient tests for characterizing fractured gas reservoirs. <i>The Leading Edge</i> , 1996, 15, 951-956.	0.7	8
94	A transformational approach to geophysical inverse problems. <i>Geophysical Journal International</i> , 1995, 123, 183-212.	2.4	7
95	Extremal inversion of travel-time residuals. <i>Bulletin of the Seismological Society of America</i> , 1986, 76, 1323-1345.	2.3	7
96	An asymptotic solution for two-phase flow in the presence of capillary forces. <i>Water Resources Research</i> , 2004, 40, .	4.2	6
97	Modelling quasi-static poroelastic propagation using an asymptotic approach. <i>Geophysical Journal International</i> , 2008, 173, 1119-1135.	2.4	6
98	Asymptotics, streamlines, and reservoir modeling: A pathway to production tomography. <i>The Leading Edge</i> , 2001, 20, 1164-1171.	0.7	5
99	The search for magma reservoirs in Long Valley Caldera: single versus distributed sources. <i>Geological Society Special Publication</i> , 2006, 269, 173-180.	1.3	5
100	Seismic imaging of reservoir flow properties: Resolving water influx and reservoir permeability. <i>Geophysics</i> , 2008, 73, O1-O13.	2.6	5
101	Study of seismic diffractions caused by a fracture zone at In Salah carbon dioxide storage project. <i>International Journal of Greenhouse Gas Control</i> , 2015, 42, 75-86.	4.6	5
102	Validating compositional fluid flow simulations using 4D seismic interpretation and vice versa in the SECARB Early Test – A critical review. <i>International Journal of Greenhouse Gas Control</i> , 2019, 82, 162-174.	4.6	5
103	On the use of adjoints in the inversion of observed quasi-static deformation. <i>Geophysical Journal International</i> , 2020, 224, 896-908.	2.4	5
104	Monitoring the fate of injected CO ₂ using geodetic techniques. <i>The Leading Edge</i> , 2020, 39, 29-37.	0.7	5
105	Seismic source representation in orthogonal functions. <i>Geophysical Journal International</i> , 1990, 102, 531-535.	2.4	4
106	Degeneracy, singularity and multiple solutions in geophysical inversion. <i>Geophysical Journal International</i> , 1993, 113, 434-448.	2.4	4
107	An integrated approach for characterizing fractured reservoirs. <i>Geological Society Special Publication</i> , 1998, 147, 193-208.	1.3	4
108	Intersections, ideals, and inversion. <i>Inverse Problems</i> , 1999, 15, 1573-1602.	2.0	4

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109	On fluid flow in a heterogeneous medium under nonisothermal conditions. <i>Water Resources Research</i> , 2010, 46, .	4.2	4
110	Dispersive transport and symmetry of the dispersion tensor in porous media. <i>Physical Review E</i> , 2017, 95, 043103.	2.1	4
111	Broad band trajectory mechanics. <i>Geophysical Journal International</i> , 0, , .	2.4	4
112	An extended trajectory-mechanics approach for calculating the path of a pressure transient: travel-time tomography. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 4541-4560.	4.9	4
113	Zeroth-order asymptotics: Waveform inversion of the lowest degree. <i>Geophysics</i> , 2003, 68, 614-628.	2.6	4
114	Joint use of crosswell EM and seismics for monitoring CO ₂ storage at the Containment and Monitoring Institute Field Site (CaMI): Baseline surveys and preliminary results. , 2020, , .		4
115	Trajectory-based modelling of broad-band electromagnetic wavefields. <i>Geophysical Journal International</i> , 2007, 168, 949-963.	2.4	3
116	On the propagation of a disturbance in a heterogeneous, deformable, porous medium saturated with two fluid phases. <i>Geophysics</i> , 2012, 77, L25-L44.	2.6	3
117	On the propagation of a disturbance in a smoothly varying heterogeneous porous medium saturated with three fluid phases. <i>Geophysics</i> , 2013, 78, L1-L26.	2.6	3
118	Rapid estimation of earthquake locations using waveform traveltimes. <i>Geophysical Journal International</i> , 2019, 217, 1727-1741.	2.4	3
119	The correspondence between gravitational attraction and surface displacement due to volume expansion. <i>Geophysical Journal International</i> , 1987, 89, 749-754.	2.4	2
120	Hydrologic Imaging of Fractured Rock. <i>Materials Research Society Symposia Proceedings</i> , 1994, 353, 379.	0.1	2
121	Improving thin-bed resolution: Application of a sparse-layer inversion on 3D seismic observations from the In Salah carbon dioxide storage project. <i>Interpretation</i> , 2015, 3, SS65-SS71.	1.1	2
122	Estimating fluid-induced stress change from observed deformation. <i>Geophysical Journal International</i> , 0, , ggw472.	2.4	2
123	Trajectory-based modeling of fluid transport in a medium with smoothly varying heterogeneity. <i>Water Resources Research</i> , 2016, 52, 2618-2646.	4.2	2
124	Using onset times from frequent seismic surveys to understand fluid flow at the Peace River Field, Canada. <i>Geophysical Journal International</i> , 2020, 223, 1610-1629.	2.4	2
125	Adjoint-based Inversion of Geodetic Data for Sources of Deformation and Strain. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021735.	3.4	2
126	Wellbore integrity investigation using seismic tube-wave and time-domain reflectometry: Laboratory modeling. , 2018, , .		2

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127	Determination of porosity and saturation using seismic waveform inversion. <i>Studia Geophysica Et Geodaetica</i> , 2007, 51, 119-140.	0.5	1
128	On the propagation of a quasi-static disturbance in a heterogeneous, deformable, and porous medium with pressure-dependent properties. <i>Water Resources Research</i> , 2011, 47, .	4.2	1
129	A trajectory mechanics approach for the study of wave propagation in an anisotropic elastic medium. <i>Geophysical Journal International</i> , 2019, 219, 1885-1899.	2.4	1
130	Seismicity and Stress Associated With a Fluid-Driven Fracture: Estimating the Evolving Geometry. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020190.	3.4	1
131	Interferometric SAR modelling of near surface data to improve geological model in the Surat Basin, Australia. <i>Journal of Applied Geophysics</i> , 2021, 194, 104444.	2.1	1
132	Trajectory-Based Methods for Modeling and Characterization. <i>Studies in Computational Intelligence</i> , 2008, , 69-103.	0.9	1
133	Monitoring natural gas storage using Synthetic Aperture Radar: Are the residuals informative?. <i>Geophysical Journal International</i> , 0, , .	2.4	1
134	Fluid pressure arrival time tomography: Estimation and assessment in the presence of inequality constraints, with an application to production at the Krechba field, Algeria. , 2009, , .		1
135	Characterization of a fracture zone using seismic attributes at the In Salah CO ₂ storage project. , 2015, , .		1
136	Seismic monitoring of well integrity. <i>The Leading Edge</i> , 2022, 41, 134-139.	0.7	1
137	From Surface Deformation to Permeability – A Case Study. , 2010, , .		0
138	Multi-Geometry SAR Interferometry for CO ₂ sequestration monitoring. , 2011, , .		0
139	Monitoring the Deformation Associated with the Geological Storage of CO ₂ . , 2019, , 93-114.		0
140	An extended trajectory-mechanics approach for calculating two-phase flow paths. <i>AIP Advances</i> , 2020, 10, 095205.	1.3	0
141	Using onset times from frequent geophysical surveys to understand reservoir fluid flow and to estimate flow properties. <i>First Break</i> , 2021, 39, 53-60.	0.4	0
142	Using geodetic data in geothermal areas. <i>The Leading Edge</i> , 2020, 39, 883-892.	0.7	0
143	Enhanced Multi-Dimensional Inversion Through Target-Specific Inversion Parameter Bounds With an Application to Crosswell Electromagnetic for Sequestration Monitoring. <i>Frontiers in Earth Science</i> , 2022, 10, .	1.8	0