Clayton V Deutsch

List of Publications by Year
in descending order

70 papers	2,276 citations	346980 22 h-index	252626 46 g-index
72 all docs	72 docs citations	72 times ranked	1799 citing authors

#	Article	IF	Citations
1	Combination of Machine Learning and Kriging for Spatial Estimation of Geological Attributes. Natural Resources Research, 2022, 31, 191-213.	2.2	19
2	Estimating Stable Measured Values and Detecting Anomalies in Groundwater Geochemistry Time Series Data Across the Athabasca Oil Sands Area, Canada. Natural Resources Research, 2021, 30, 1755-1779.	2.2	3
3	Efficient Multivariate Property Modeling with Seismic Data. Natural Resources Research, 2021, 30, 4107.	2.2	0
4	Decomposition of multivariate spatial data into latent factors. Computers and Geosciences, 2021, 153, 104773.	2.0	1
5	Simulation of decorrelated factors in presence of secondary data. Spatial Statistics, 2019, 33, 100385.	0.9	0
6	Multivariate data imputation using Gaussian mixture models. Spatial Statistics, 2018, 27, 74-90.	0.9	13
7	Declustering experimental variograms by global estimation with fourth order moments. Stochastic Environmental Research and Risk Assessment, 2018, 32, 261-277.	1.9	6
8	Geostatistical Simulation with a Trend Using Gaussian Mixture Models. Natural Resources Research, 2018, 27, 347-363.	2.2	11
9	Horizontal variogram inference in the presence of widely spaced well data. Petroleum Geoscience, 2018, 24, 219-235.	0.9	4
10	Multivariate stochastic seismic inversion with adaptive sampling. Geophysics, 2018, 83, R429-R448.	1.4	6
11	Geostatistical Modeling with Histogram Uncertainty: Confirmation of a Correct Approach. Natural Resources Research, 2017, 26, 285-302.	2.2	3
12	Reproduction of secondary data in projection pursuit transformation. Stochastic Environmental Research and Risk Assessment, 2017, 31, 2585-2605.	1.9	7
13	Facies proportion uncertainty in presence of a trend. Journal of Petroleum Science and Engineering, 2017, 153, 59-69.	2.1	9
14	Multiple imputation framework for data assignment in truncated pluri-Gaussian simulation. Stochastic Environmental Research and Risk Assessment, 2017, 31, 2251-2263.	1.9	6
15	Practical Incorporation of Multivariate Parameter Uncertainty in Geostatistical Resource Modeling. Natural Resources Research, 2016, 25, 51-70.	2.2	13
16	Multivariate Geostatistical Grid-Free Simulation of Natural Phenomena. Mathematical Geosciences, 2016, 48, 891-920.	1.4	3
17	Multivariate grid-free geostatistical simulation with point or block scale secondary data. Stochastic Environmental Research and Risk Assessment, 2016, 30, 1613-1633.	1.9	6
18	Spatial Modeling of Geometallurgical Properties: Techniques and a Case Study. Natural Resources Research, 2016, 25, 161-181.	2.2	39

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19	Multivariate Imputation of Unequally Sampled Geological Variables. Mathematical Geosciences, 2015, 47, 791-817.	1.4	18
20	A Methodology for Sensitivity Analysis Based on Regression: Applications to Handle Uncertainty in Natural Resources Characterization. Natural Resources Research, 2015, 24, 239-274.	2.2	12
21	Facies trend modeling for SAGD application at Surmont. Journal of Petroleum Science and Engineering, 2014, 119, 85-103.	2.1	7
22	A multidimensional scaling approach to enforce reproduction of transition probabilities in truncated plurigaussian simulation. Stochastic Environmental Research and Risk Assessment, 2014, 28, 707-716.	1.9	12
23	A Multiple Training Image Approach for Spatial Modeling of Geologic Domains. Mathematical Geosciences, 2014, 46, 815-840.	1.4	9
24	Projection Pursuit Multivariate Transform. Mathematical Geosciences, 2014, 46, 337-359.	1.4	71
25	Resource Model Validations and Reconciliations. , 2014, , 193-207.		0
26	Recoverable Resources: Estimation. , 2014, , 133-150.		2
27	Geometallurgical Modeling at Olympic Dam Mine, South Australia. Mathematical Geosciences, 2013, 45, 901-925.	1.4	49
28	Accounting for non-exclusivity in sequential indicator simulation of categorical variables. Computers and Geosciences, 2013, 51, 118-128.	2.0	6
29	Non-stationary Geostatistical Modeling Based on Distance Weighted Statistics and Distributions. Mathematical Geosciences, 2013, 45, 31-48.	1.4	39
30	A flexible sequential Gaussian simulation program: USGSIM. Computers and Geosciences, 2012, 41, 208-216.	2.0	26
31	Practical Implementation of Non-linear Transforms for Modeling Geometallurgical Variables. Quantitative Geology and Geostatistics, 2012, , 409-422.	0.1	7
32	Programs for kriging and sequential Gaussian simulation with locally varying anisotropy using non-Euclidean distances. Computers and Geosciences, 2011, 37, 495-510.	2.0	59
33	Plotting and checking the bivariate distributions of multiple Gaussian data. Computers and Geosciences, 2011, 37, 1677-1684.	2.0	1
34	Modeling locally varying anisotropy of CO_2 emissions in the United States. Stochastic Environmental Research and Risk Assessment, 2011, 25, 1077-1084.	1.9	7
35	Fluvial channel size determination with indicator variograms. Petroleum Geoscience, 2010, 16, 161-169.	0.9	6
36	Reescalamiento de modelos de facies para preservar la conectividad de las facies designadas. Hydrogeology Journal, 2010, 18, 1357-1373.	0.9	6

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37	An approximate method for joint sequential simulation of multiple spatial variables. Stochastic Environmental Research and Risk Assessment, 2010, 24, 327-336.	1.9	3
38	Probabilistic data integration for characterization of spatial distribution of residual LNAPL. Stochastic Environmental Research and Risk Assessment, 2010, 24, 735-749.	1.9	6
39	Multiple Point Metrics to Assess Categorical Variable Models. Natural Resources Research, 2010, 19, 165-175.	2.2	31
40	Statistical approach to inverse distance interpolation. Stochastic Environmental Research and Risk Assessment, 2009, 23, 543-553.	1.9	133
41	Collocated Cokriging Based on Merged Secondary Attributes. Mathematical Geosciences, 2009, 41, 921-926.	1.4	21
42	Accounting for Parameter Uncertainty in Reservoir Uncertainty Assessment: The Conditional Finite-Domain Approach. Natural Resources Research, 2009, 18, 7-17.	2.2	9
43	Uncertainty as the overlap of alternate conditional distributions. Computational Geosciences, 2008, 12, 503-512.	1.2	4
44	Spectral Corrected Semivariogram Models. Mathematical Geosciences, 2007, 38, 891-899.	0.9	3
45	Semivariogram Models Based on Geometric Offsets. Mathematical Geosciences, 2006, 38, 475-488.	0.9	8
46	Reservoir Characterization of McMurray Formation by 2D Geostatistical Modeling. Natural Resources Research, 2006, 15, 111-117.	2.2	4
47	A sequential indicator simulation program for categorical variables with point and block data: BlockSIS. Computers and Geosciences, 2006, 32, 1669-1681.	2.0	130
48	Stochastic surface-based modeling of turbidite lobes. AAPG Bulletin, 2005, 89, 177-191.	0.7	86
49	Transformation of Residuals to Avoid Artifacts in Geostatistical Modelling with a Trend. Mathematical Geosciences, 2004, 36, 287-305.	0.9	21
50	Indicator Simulation Accounting for Multiple-Point Statistics. Mathematical Geosciences, 2004, 36, 545-565.	0.9	60
51	Minimum Acceptance Criteria for Geostatistical Realizations. Natural Resources Research, 2004, 13, 131-141.	2.2	92
52	The Quality Map: A Tool for Reservoir Uncertainty Quantification and Decision Making. SPE Reservoir Evaluation and Engineering, 2004, 7, 6-14.	1.1	37
53	Stepwise Conditional Transformation for Simulation of Multiple Variables. Mathematical Geosciences, 2003, 35, 155-173.	0.9	89
54	Size Scaling of Cross Correlation Between Multiple Variables. Natural Resources Research, 2002, 11, 1-18.	2.2	5

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55	Teacher's Aide Variogram Interpretation and Modeling. Mathematical Geosciences, 2001, 33, 507-534.	0.9	283
56	Foreword to Special Issue: Modeling Subsurface Flow. Mathematical Geosciences, 1999, 31, 747-748.	0.9	2
57	Deriving Constraints on Small-Scale Variograms due to Variograms of Large-Scale Data. Mathematical Geosciences, 1998, 30, 837-852.	0.9	21
58	Cleaning categorical variable (lithofacies) realizations with maximum a-posteriori selection. Computers and Geosciences, 1998, 24, 551-562.	2.0	40
59	Improved Reservoir Management Through Ranking Stochastic Reservoir Models. , 1996, , .		28
60	Correcting for negative weights in ordinary kriging. Computers and Geosciences, 1996, 22, 765-773.	2.0	75
61	Challenges in reservoir forecasting. Mathematical Geosciences, 1996, 28, 829-842.	0.9	22
62	Hierarchical object-based stochastic modeling of fluvial reservoirs. Mathematical Geosciences, 1996, 28, 857-880.	0.9	225
63	Constrained Smoothing of Histograms and Scatterplots With Simulated Annealing. Technometrics, 1996, 38, 266-274.	1.3	8
64	Practical considerations in the application of simulated annealing to stochastic simulation. Mathematical Geosciences, 1994, 26, 67-82.	0.9	99
65	Kriging with strings of data. Mathematical Geosciences, 1994, 26, 623-638.	0.9	40
66	Algorithmically-Defined Random Function Models. Quantitative Geology and Geostatistics, 1994, , 422-435.	0.1	6
67	Kriging in a finite domain. Mathematical Geosciences, 1993, 25, 41-52.	0.9	48
68	Entropy and spatial disorder. Mathematical Geosciences, 1993, 25, 329-355.	0.9	132
69	Conditioning Reservoir Models to Well Test Information. Quantitative Geology and Geostatistics, 1993, , 505-518.	0.1	14
70	Constrained Smoothing of Histograms and Scatterplots With Simulated Annealing. , 0, .		4