Kok Kwang Phoon

List of Publications by Citations

272 papers	**9,215** citations	**49** h-index	**85** g-index
296 ext. papers	**10,882** ext. citations	**3.3** avg, IF	**6.89** L-index

#	Paper	IF	Citations
272	Characterization of geotechnical variability. *Canadian Geotechnical Journal*, **1999**, 36, 612-624	3.2	1193
271	Evaluation of geotechnical property variability. *Canadian Geotechnical Journal*, **1999**, 36, 625-639	3.2	437
270	Convergence study of the truncated Karhunen⬚oeve expansion for simulation of stochastic processes. *International Journal for Numerical Methods in Engineering*, **2001**, 52, 1029-1043	2.4	249
269	Efficient System Reliability Analysis of Slope Stability in Spatially Variable Soils Using Monte Carlo Simulation. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2015**, 141, 04014096	3.4	190
268	Simulation of second-order processes using Karhunen⬚oeve expansion. *Computers and Structures*, **2002**, 80, 1049-1060	4.5	158
267	Effect of spatially variable shear strength parameters with linearly increasing mean trend on reliability of infinite slopes. *Structural Safety*, **2014**, 49, 45-55	4.9	156
266	Implementation of Karhunen⬚oeve expansion for simulation using a wavelet-Galerkin scheme. *Probabilistic Engineering Mechanics*, **2002**, 17, 293-303	2.6	150
265	Simulation of strongly non-Gaussian processes using Karhunen⬚oeve expansion. *Probabilistic Engineering Mechanics*, **2005**, 20, 188-198	2.6	144
264	Identification of Statistically Homogeneous Soil Layers Using Modified Bartlett Statistics. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2003**, 129, 649-659	3.4	140
263	Response surface methods for slope reliability analysis: Review and comparison. *Engineering Geology*, **2016**, 203, 3-14	6	135
262	Random field characterisation of stress-nomalised cone penetration testing parameters. *Geotechnique*, **2005**, 55, 3-20	3.4	133
261	Impact of copula selection on geotechnical reliability under incomplete probability information. *Computers and Geotechnics*, **2013**, 49, 264-278	4.4	131
260	Copula-based approaches for evaluating slope reliability under incomplete probability information. *Structural Safety*, **2015**, 52, 90-99	4.9	124
259	Effects of soil spatial variability on rainfall-induced landslides. *Computers and Structures*, **2011**, 89, 893-900	4.5	112
258	Efficient Evaluation of Reliability for Slopes with Circular Slip Surfaces Using Importance Sampling. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2009**, 135, 768-777	3.4	107
257	Validation of a New 2D Failure Mechanism for the Stability Analysis of a Pressurized Tunnel Face in a Spatially Varying Sand. *Journal of Engineering Mechanics - ASCE*, **2011**, 137, 8-21	2.4	97
256	Development of a Reliability-Based Design Framework for Transmission Line Structure Foundations. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2003**, 129, 798-806	3.4	97

255	Bivariate simulation using copula and its application to probabilistic pile settlement analysis. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2013**, 37, 597-617	4	89
254	Probabilistic Analysis of Soil-Water Characteristic Curves. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2010**, 136, 445-455	3.4	89
253	Characterization of Model Uncertainty in the Static Pile Design Formula. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2011**, 137, 70-85	3.4	89
252	Reliability analysis with scarce information: Comparing alternative approaches in a geotechnical engineering context. *Structural Safety*, **2013**, 41, 1-10	4.9	87
251	Multiple Resistance Factor Design for Shallow Transmission Line Structure Foundations. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2003**, 129, 807-818	3.4	87
250	Impact of copulas for modeling bivariate distributions on system reliability. *Structural Safety*, **2013**, 44, 80-90	4.9	85
249	Singapore Rainfall Behavior: Chaotic?. *Journal of Hydrologic Engineering - ASCE*, **1999**, 4, 38-48	1.8	82
248	Application of the Kriging-Based Response Surface Method to the System Reliability of Soil Slopes. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2013**, 139, 651-655	3.4	81
247	Improved AHP Method and Its Application in Risk Identification. *Journal of Construction Engineering and Management - ASCE*, **2013**, 139, 312-320	4.2	80
246	Three-dimensional slope reliability and risk assessment using auxiliary random finite element method. *Computers and Geotechnics*, **2016**, 79, 146-158	4.4	75
245	Modeling parameters of structured clays as a multivariate normal distribution. *Canadian Geotechnical Journal*, **2012**, 49, 522-545	3.2	75
244	Reducing shear strength uncertainties in clays by multivariate correlations. *Canadian Geotechnical Journal*, **2010**, 47, 16-33	3.2	72
243	Direct simulation of random field samples from sparsely measured geotechnical data with consideration of uncertainty in interpretation. *Canadian Geotechnical Journal*, **2018**, 55, 862-880	3.2	70
242	Bivariate distribution of shear strength parameters using copulas and its impact on geotechnical system reliability. *Computers and Geotechnics*, **2015**, 68, 184-195	4.4	69
241	Correlations among some clay parameters Ithe multivariate distribution. *Canadian Geotechnical Journal*, **2014**, 51, 686-704	3.2	68
240	Low Strain Integrity Testing of Piles: Three-Dimensional Effects. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2003**, 129, 1057-1062	3.4	68
239	Role of reliability calculations in geotechnical design. *Georisk*, **2017**, 11, 4-21	1.9	67
238	Evaluating slope stability uncertainty using coupled Markov chain. *Computers and Geotechnics*, **2016**, 73, 72-82	4.4	67

237	Transformations and correlations among some clay parameters 🗆 the global database. *Canadian Geotechnical Journal*, **2014**, 51, 663-685	3.2	67
236	A systematic approach to noise reduction in chaotic hydrological time series. *Journal of Hydrology*, **1999**, 219, 103-135	6	63
235	Efficient and consistent reliability analysis of soil slope stability using both limit equilibrium analysis and finite element analysis. *Applied Mathematical Modelling*, **2016**, 40, 5216-5229	4.5	62
234	Simulation of non-stationary non-Gaussian random fields from sparse measurements using Bayesian compressive sampling and Karhunen-Loève expansion. *Structural Safety*, **2019**, 79, 66-79	4.9	57
233	Correlations for undrained shear strength of Finnish soft clays. *Canadian Geotechnical Journal*, **2016**, 53, 1628-1645	3.2	57
232	Strength of High Water-Content Marine Clay Stabilized by Low Amount of Cement. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2013**, 139, 2170-2181	3.4	57
231	Statistical characterization of random field parameters using frequentist and Bayesian approaches. *Canadian Geotechnical Journal*, **2016**, 53, 285-298	3.2	55
230	Characterizing Uncertain Site-Specific Trend Function by Sparse Bayesian Learning. *Journal of Engineering Mechanics - ASCE*, **2017**, 143, 04017028	2.4	55
229	Reliability-based design and its complementary role to Eurocode 7 design approach. *Computers and Geotechnics*, **2015**, 65, 30-44	4.4	55
228	Effect of element sizes in random field finite element simulations of soil shear strength. *Computers and Structures*, **2013**, 126, 120-134	4.5	55
227	Mobilized shear strength of spatially variable soils under simple stress states. *Structural Safety*, **2013**, 41, 20-28	4.9	55
226	Simulation of geologic uncertainty using coupled Markov chain. *Engineering Geology*, **2016**, 207, 129-140	6	54
225	Constructing Site-Specific Multivariate Probability Distribution Model Using Bayesian Machine Learning. *Journal of Engineering Mechanics - ASCE*, **2019**, 145, 04018126	2.4	53
224	An efficient diagonal preconditioner for finite element solution of Biot's consolidation equations. *International Journal for Numerical Methods in Engineering*, **2002**, 55, 377-400	2.4	50
223	Multivariate distribution for undrained shear strengths under various test procedures. *Canadian Geotechnical Journal*, **2013**, 50, 907-923	3.2	49
222	System reliability analysis of slope stability using generalized Subset Simulation. *Applied Mathematical Modelling*, **2017**, 46, 650-664	4.5	48
221	Simulation of non-Gaussian processes using fractile correlation. *Probabilistic Engineering Mechanics*, **2004**, 19, 287-292	2.6	47
220	Modeling piezocone cone penetration (CPTU) parameters of clays as a multivariate normal distribution. *Canadian Geotechnical Journal*, **2014**, 51, 77-91	3.2	46

219	Characterization of Model Uncertainty for Cantilever Deflections in Undrained Clay. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2015**, 141, 04014088	3.4	45
218	Reliability evaluation of slope considering geological uncertainty and inherent variability of soil parameters. *Computers and Geotechnics*, **2017**, 92, 121-131	4.4	45
217	Axisymmetric Lower-Bound Limit Analysis Using Finite Elements and Second-Order Cone Programming. *Journal of Engineering Mechanics - ASCE*, **2014**, 140, 268-278	2.4	44
216	Simulation of Random Fields with Trend from Sparse Measurements without Detrending. *Journal of Engineering Mechanics - ASCE*, **2019**, 145, 04018130	2.4	44
215	Reliability analysis of strip footing considering spatially variable undrained shear strength that linearly increases with depth. *Soils and Foundations*, **2015**, 55, 866-880	2.9	43
214	Effect of spatial variability on short- and long-term behaviour of axially-loaded cement-admixed marine clay column. *Computers and Geotechnics*, **2018**, 94, 150-168	4.4	41
213	Probability distribution for mobilised shear strengths of spatially variable soils under uniform stress states. *Georisk*, **2013**, 7, 209-224	1.9	41
212	Bayesian identification of random field model using indirect test data. *Engineering Geology*, **2016**, 210, 197-211	6	40
211	Characterisation of geotechnical model uncertainty. *Georisk*, **2019**, 13, 101-130	1.9	39
210	Block preconditioners for symmetric indefinite linear systems. *International Journal for Numerical Methods in Engineering*, **2004**, 60, 1361-1381	2.4	39
209	Scale of Fluctuation for Spatially Varying Soils: Estimation Methods and Values. *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, **2020**, 6, 03120002	1.7	39
208	Bootstrap method for characterizing the effect of uncertainty in shear strength parameters on slope reliability. *Reliability Engineering and System Safety*, **2015**, 140, 99-106	6.3	38
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206	Lower-Bound Limit Analysis of Seismic Passive Earth Pressure on Rigid Walls. *International Journal of Geomechanics*, **2014**, 14, 04014022	3.1	37
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204	A modified SSOR preconditioner for sparse symmetric indefinite linear systems of equations. *International Journal for Numerical Methods in Engineering*, **2006**, 65, 785-807	2.4	37
203	Comparison between Karhunen□loève expansion and translation-based simulation of non-Gaussian processes. *Computers and Structures*, **2007**, 85, 264-276	4.5	36
202	Reliability-based design for transmission line structure foundations. *Computers and Geotechnics*, **2000**, 26, 169-185	4.4	36

No.	Title	IF	Cites
201	Long-Term Effect of Curing Temperature on the Strength Behavior of Cement-Stabilized Clay. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2014**, 140, 04014045	3.4	35
200	Modified Metropolis-Hastings algorithm with reduced chain correlation for efficient subset simulation. *Probabilistic Engineering Mechanics*, **2011**, 26, 331-341	2.6	35
199	Bayesian model comparison and characterization of bivariate distribution for shear strength parameters of soil. *Computers and Geotechnics*, **2018**, 95, 110-118	4.4	34
198	Performance of translation approach for modeling correlated non-normal variables. *Structural Safety*, **2012**, 39, 52-61	4.9	34
197	Uncertainty analysis of correlated non-normal geotechnical parameters using Gaussian copula. *Science China Technological Sciences*, **2012**, 55, 3081-3089	3.5	34
196	Practical Inverse Approach for Forecasting Nonlinear Hydrological Time Series. *Journal of Hydrologic Engineering - ASCE*, **2002**, 7, 116-128	1.8	34
195	Comparison between Karhunen-Loeve and wavelet expansions for simulation of Gaussian processes. *Computers and Structures*, **2004**, 82, 985-991	4.5	33
194	Characterisation of model uncertainties for laterally loaded rigid drilled shafts. *Geotechnique*, **2005**, 55, 45-54	3.4	33
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192	R-LRFD: Load and resistance factor design considering robustness. *Computers and Geotechnics*, **2016**, 74, 74-87	4.4	32
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190	A quantile-based approach for calibrating reliability-based partial factors. *Structural Safety*, **2011**, 33, 275-285	4.9	32
189	Random field characterisation of stress-normalised cone penetration testing parameters. *Geotechnique*, **2005**, 55, 3-20	3.4	32
188	Impact of Statistical Uncertainty on Geotechnical Reliability Estimation. *Journal of Engineering Mechanics - ASCE*, **2016**, 142, 04016027	2.4	31
187	Mean and Variance of Mobilized Shear Strength for Spatially Variable Soils under Uniform Stress States. *Journal of Engineering Mechanics - ASCE*, **2014**, 140, 487-501	2.4	31
186	Interpolating spatially varying soil property values from sparse data for facilitating characteristic value selection. *Canadian Geotechnical Journal*, **2018**, 55, 171-181	3.2	30
185	Worst case scale of fluctuation in basal heave analysis involving spatially variable clays. *Structural Safety*, **2017**, 68, 28-42	4.9	29
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182	Characterization of uncertainty in probabilistic model using bootstrap method and its application to reliability of piles. *Applied Mathematical Modelling*, **2015**, 39, 5310-5326	4.5	27
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179	Determination of site-specific soil-water characteristic curve from a limited number of test data ⑦A Bayesian perspective. *Geoscience Frontiers*, **2018**, 9, 1665-1677	6	26
178	Linking Site Investigation Efforts to Final Design Savings with Simplified Reliability-Based Design Methods. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2014**, 140, 04013032	3.4	26
177	Fully Probabilistic Framework for Evaluating Excavation-Induced Damage Potential of Adjacent Buildings. *Journal of Geotechnical and Geoenvironmental Engineering - ASCE*, **2011**, 137, 130-139	3.4	26
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175	Challenges in data-driven site characterization. *Georisk*,1-13	1.9	26
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170	Constructing a Site-Specific Multivariate Probability Distribution Using Sparse, Incomplete, and Spatially Variable (MUSIC-X) Data. *Journal of Engineering Mechanics - ASCE*, **2020**, 146, 04020061	2.4	24
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168	Model Uncertainty of Eurocode 7 Approach for Bearing Capacity of Circular Footings on Dense Sand. *International Journal of Geomechanics*, **2017**, 17, 04016069	3.1	24
167	Establishment of generic transformations for geotechnical design parameters. *Structural Safety*, **2012**, 35, 52-62	4.9	23
166	Impact of sample size on geotechnical probabilistic model identification. *Computers and Geotechnics*, **2017**, 87, 229-240	4.4	22

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163	Quantile value method versus design value method for calibration of reliability-based geotechnical codes. *Structural Safety*, **2013**, 44, 47-58	4.9	22
162	Observations on Limit Equilibrium‐Based Slope Reliability Problems with Inclined Weak Seams. *Journal of Engineering Mechanics - ASCE*, **2010**, 136, 1220-1233	2.4	22
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158	Transformation models for effective friction angle and relative density calibrated based on generic database of coarse-grained soils. *Canadian Geotechnical Journal*, **2017**, 54, 481-501	3.2	21
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154	Novel approach to estimate vertical scale of fluctuation based on CPT data using convolutional neural networks. *Engineering Geology*, **2021**, 294, 106342	6	20
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152	Characterization of model uncertainty in predicting axial resistance of piles driven into clay. *Canadian Geotechnical Journal*, **2019**, 56, 1098-1118	3.2	19
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150	Geostatistical analysis of cone penetration test (CPT) sounding using the modified Bartlett test. *Canadian Geotechnical Journal*, **2004**, 41, 356-365	3.2	17
149	Performance of Jacobi preconditioning in Krylov subspace solution of finite element equations. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2002**, 26, 341-372	4	17
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110	Measuring Similarity between Site-Specific Data and Records from Other Sites. *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*, **2020**, 6, 04020011	1.7	10
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