## **Richard Bathurst**

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Micromechanical Aspects of Isotropic Granular Assemblies With Linear Contact Interactions. Journal of Applied Mechanics, Transactions ASME, 1988, 55, 17-23.	2.2	284
2	Micromechanical features of granular assemblies with planar elliptical particles. Geotechnique, 1992, 42, 79-95.	4.0	273
3	Development and verification of a numerical model for the analysis of geosynthetic-reinforced soil segmental walls under working stress conditions. Canadian Geotechnical Journal, 2005, 42, 1066-1085.	2.8	254
4	Numerical Model for Reinforced Soil Segmental Walls under Surcharge Loading. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2006, 132, 673-684.	3.0	226
5	Influence of reinforcement parameters on the seismic response of reduced-scale reinforced soil retaining walls. Geotextiles and Geomembranes, 2007, 25, 33-49.	4.6	195
6	Microstructure of isotropic materials with negative Poisson's ratio. Nature, 1991, 354, 470-472.	27.8	155
7	Numerical Study of Reinforced Soil Segmental Walls Using Three Different Constitutive Soil Models. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 1486-1498.	3.0	150
8	Refinement of K-stiffness Method for geosynthetic-reinforced soil walls. Geosynthetics International, 2008, 15, 269-295.	2.9	138
9	Behaviour of geosynthetic reinforced soil retaining walls using the finite element method. Computers and Geotechnics, 1995, 17, 279-299.	4.7	136
10	A new working stress method for prediction of reinforcement loads in geosynthetic walls. Canadian Geotechnical Journal, 2003, 40, 976-994.	2.8	129
11	Shaking table testing of geofoam seismic buffers. Soil Dynamics and Earthquake Engineering, 2007, 27, 324-332.	3.8	124
12	Improved Simplified Method for Prediction of Loads in Reinforced Soil Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	3.0	114
13	Facing contribution to seismic response of reduced-scale reinforced soil walls. Geosynthetics International, 2005, 12, 215-238.	2.9	112
14	The influence of facing stiffness on the performance of two geosynthetic reinforced soil retaining walls. Canadian Geotechnical Journal, 2006, 43, 1225-1237.	2.8	112
15	Reliability-based geotechnical design in 2014 Canadian Highway Bridge Design Code. Canadian Geotechnical Journal, 2016, 53, 236-251.	2.8	109
16	Influence of reinforcement stiffness and compaction on the performance of four geosynthetic-reinforced soil walls. Geosynthetics International, 2009, 16, 43-59.	2.9	108
17	Influence of toe restraint on reinforced soil segmental walls. Canadian Geotechnical Journal, 2010, 47, 885-904.	2.8	101
18	A new approach to evaluate soil-geosynthetic interaction using a novel pullout test apparatus and transparent granular soil. Geotextiles and Geomembranes, 2014, 42, 246-255.	4.6	101

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19	Calibration concepts for load and resistance factor design (LRFD) of reinforced soil walls. Canadian Geotechnical Journal, 2008, 45, 1377-1392.	2.8	97
20	Seismic response analysis of geosynthetic reinforced soil segmental retaining walls by finite element method. Computers and Geotechnics, 1995, 17, 523-546.	4.7	89
21	Experimental investigation of EPS geofoam seismic buffers using shaking table tests. Geosynthetics International, 2007, 14, 165-177.	2.9	89
22	Past, Present, and Future of Transparent Soils. Geotechnical Testing Journal, 2015, 38, 20150079.	1.0	86
23	Behaviour of a geogrid reinforced wall built with recycled construction and demolition waste backfill on a collapsible foundation. Geotextiles and Geomembranes, 2013, 39, 9-19.	4.6	84
24	Simplified probabilistic slope stability design charts for cohesive and cohesive-frictional ( <i>c</i> -ï•) soils. Canadian Geotechnical Journal, 2014, 51, 1033-1045.	2.8	77
25	Lateral and axial deformation of PP, HDPE and PET geogrids under tensile load. Geotextiles and Geomembranes, 2004, 22, 205-222.	4.6	75
26	Performance of an 11 m high block-faced geogrid wall designed using the <i>K</i> -stiffness method. Canadian Geotechnical Journal, 2014, 51, 16-29.	2.8	74
27	Experimental design, instrumentation and interpretation of reinforced soil wall response using a shaking table. International Journal of Physical Modelling in Geotechnics, 2004, 4, 13-32.	0.6	72
28	Probabilistic stability analysis of simple reinforced slopes by finite element method. Computers and Geotechnics, 2016, 77, 45-55.	4.7	71
29	New Method for Prediction of Loads in Steel Reinforced Soil Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2004, 130, 1109-1120.	3.0	70
30	Performance of instrumented large-scale unreinforced and reinforced embankments loaded by a strip footing to failure. Canadian Geotechnical Journal, 2003, 40, 1067-1083.	2.8	69
31	Influence of choice of FLAC and PLAXIS interface models on reinforced soil–structure interactions. Computers and Geotechnics, 2015, 65, 164-174.	4.7	69
32	Design and Performance of 6.3-m-High, Block-Faced Geogrid Wall Designed Using K-Stiffness Method. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	3.0	68
33	Numerical Modeling of the SR-18 Geogrid Reinforced Modular Block Retaining Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	3.0	68
34	Geosynthetic reinforcement stiffness for analytical and numerical modelling of reinforced soil structures. Geotextiles and Geomembranes, 2021, 49, 921-940.	4.6	68
35	Geosynthetic reinforcement stiffness characterization for MSE wall design. Geosynthetics International, 2019, 26, 592-610.	2.9	65
36	Static Response of Reinforced Soil Retaining Walls with Nonuniform Reinforcement. International Journal of Geomechanics, 2001, 1, 477-506.	2.7	63

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37	Physical and numerical modelling of a geogrid-reinforced incremental concrete panel retaining wall. Canadian Geotechnical Journal, 2016, 53, 1883-1901.	2.8	63
38	Numerical parametric study of expanded polystyrene (EPS) geofoam seismic buffers. Canadian Geotechnical Journal, 2009, 46, 318-338.	2.8	62
39	Load and resistance factor design (LRFD) calibration for steel grid reinforced soil walls. Georisk, 2011, 5, 218-228.	3.5	61
40	Influence of cross correlation between soil parameters on probability of failure of simple cohesive and <i>c</i> -ï• slopes. Canadian Geotechnical Journal, 2016, 53, 839-853.	2.8	61
41	Development of the <i>K</i> -stiffness method for geosynthetic reinforced soil walls constructed with <i>c</i> -ï• soils. Canadian Geotechnical Journal, 2007, 44, 1391-1416.	2.8	60
42	Numerical modeling of EPS seismic buffer shaking table tests. Geotextiles and Geomembranes, 2008, 26, 371-383.	4.6	60
43	Numerical modelling of two full-scale reinforced soil wrapped-face walls. Geotextiles and Geomembranes, 2017, 45, 237-249.	4.6	59
44	Numerical Analysis of an Instrumented Steel-Reinforced Soil Wall. International Journal of Geomechanics, 2015, 15, .	2.7	55
45	Comparison of numerical and analytical solutions for reinforced soil wall shaking table tests. Geomechanics and Engineering, 2011, 3, 291-321.	0.9	55
46	Numerical analysis of a mechanically stabilized earth wall reinforced with steel strips. Soils and Foundations, 2015, 55, 536-547.	3.1	54
47	Probabilistic analysis of reinforced slopes using RFEM and considering spatial variability of frictional soil properties due to compaction. Georisk, 2018, 12, 87-108.	3.5	51
48	Application of the Simplified Stiffness Method to Design of Reinforced Soil Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	50
49	Probabilistic analysis of simple slopes with cohesive soil strength using RLEM and RFEM. Georisk, 2017, 11, 231-246.	3.5	49
50	Environmental assessment of earth retaining wall structures. Environmental Geotechnics, 2017, 4, 415-431.	2.3	48
51	A Transparent Sand for Geotechnical Laboratory Modeling. Geotechnical Testing Journal, 2011, 34, 590-601.	1.0	48
52	LRFD Calibration of Simple Soil-Structure Limit States Considering Method Bias and Design Parameter Variability. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	44
53	Analysis of installation damage tests for LRFD calibration of reinforced soil structures. Geotextiles and Geomembranes, 2011, 29, 323-334.	4.6	42
54	Geogrid pullout load–strain behaviour and modelling using a transparent granular soil. Geosynthetics International, 2016, 23, 271-286.	2.9	42

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55	Influence of Selection of Soil and Interface Properties on Numerical Results of Two Soil–Geosynthetic Interaction Problems. International Journal of Geomechanics, 2017, 17, .	2.7	42
56	Analysis and calibration of default steel strip pullout models used in Japan. Soils and Foundations, 2012, 52, 481-497.	3.1	41
57	Numerical study of the influence of foundation compressibility and reinforcement stiffness on the behavior of reinforced soil walls. International Journal of Geotechnical Engineering, 2014, 8, 247-259.	2.0	41
58	Sustainability assessment of earth-retaining wall structures. Environmental Geotechnics, 2018, 5, 187-203.	2.3	41
59	Measured and predicted loads in steel strip reinforced câ^'i• soil walls in Japan. Soils and Foundations, 2012, 52, 1-17.	3.1	40
60	Influence of model type, bias and input parameter variability on reliability analysis for simple limit states in soil–structure interaction problems. Georisk, 2017, 11, 42-54.	3.5	40
61	Performance of three geogrid-reinforced soil walls before and after foundation failure. Geosynthetics International, 2015, 22, 311-326.	2.9	39
62	Deterministic and probabilistic failure analysis of simple geosynthetic reinforced soil slopes. Geosynthetics International, 2017, 24, 14-29.	2.9	39
63	Vertical-Facing Loads in Steel-Reinforced Soil Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1419-1432.	3.0	37
64	Modified unit cell approach for modelling geosynthetic-reinforced column-supported embankments. Geotextiles and Geomembranes, 2016, 44, 332-343.	4.6	37
65	Experimental Design, Instrumentation and Interpretation of Reinforced Soil Wall Response Using a Shaking Table. International Journal of Physical Modelling in Geotechnics, 2004, 4, 13-32.	0.6	37
66	Evaluation of K-Stiffness Method for Vertical Geosynthetic Reinforced Granular Soil Walls in Japan. Soils and Foundations, 2007, 47, 319-335.	3.1	36
67	Influence of cross correlation between nominal load and resistance on reliability-based design for simple linear soil-structure limit states. Canadian Geotechnical Journal, 2018, 55, 279-295.	2.8	36
68	Reliability-based design of internal limit states for mechanically stabilized earth walls using geosynthetic reinforcement. Canadian Geotechnical Journal, 2019, 56, 774-788.	2.8	34
69	Geogrid and Soil Displacement Observations During Pullout Using a Transparent Granular Soil. Geotechnical Testing Journal, 2015, 38, 20140145.	1.0	33
70	LRFD Calibration for Steel Strip Reinforced Soil Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2012, 138, 922-933.	3.0	32
71	A simple displacement model for response analysis of EPS geofoam seismic buffers. Soil Dynamics and Earthquake Engineering, 2007, 27, 344-353.	3.8	31
72	Influence of constitutive model on numerical simulation of EPS seismic buffer shaking table tests. Geotextiles and Geomembranes, 2009, 27, 308-312.	4.6	31

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73	Evaluation of tensile load model accuracy for PET strap MSE walls. Geosynthetics International, 2018, 25, 656-671.	2.9	31
74	Predicted Loads in Steel Reinforced Soil Walls Using the AASHTO Simplified Method. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 177-184.	3.0	30
75	Reliability analysis of soil-geogrid pullout models in Japan. Soils and Foundations, 2012, 52, 620-633.	3.1	30
76	Modelling of geosynthetic-reinforced column-supported embankments using 2D full-width model and modified unit cell approach. Geotextiles and Geomembranes, 2017, 45, 103-120.	4.6	29
77	Reliability bearing capacity analysis of footings on cohesive soil slopes using RFEM. Computers and Geotechnics, 2017, 89, 203-212.	4.7	29
78	Statistical Evaluation of the FHWA Simplified Method and Modifications for Predicting Soil Nail Loads. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	29
79	LRFD Calibration of Internal Limit States for Geogrid MSE Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	29
80	Facing Displacements in Geosynthetic Reinforced Soil Walls. , 2010, , .		28
81	Reliability-based analysis of combined installation damage and creep for the tensile rupture limit state of geogrid reinforcement in Japan. Soils and Foundations, 2015, 55, 437-446.	3.1	28
82	Deterministic and random FEM analysis of full-scale unreinforced and reinforced embankments. Geosynthetics International, 2018, 25, 164-179.	2.9	28
83	Large-scale interface shear testing of sandbag dyke materials. Geosynthetics International, 2007, 14, 119-126.	2.9	27
84	Predicted and measured loads using the coherent gravity method. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2008, 161, 113-120.	1.0	27
85	LRFD Calibration of the Ultimate Pullout Limit State for Geogrid Reinforced Soil Retaining Walls. International Journal of Geomechanics, 2012, 12, 399-413.	2.7	27
86	Probabilistic assessment of reinforced soil wall performance using response surface method. Geosynthetics International, 2017, 24, 524-542.	2.9	27
87	Experimental investigation of infiltration ponding in one-dimensional sand–geotextile columns. Geosynthetics International, 2009, 16, 158-172.	2.9	26
88	Nonlinear load–strain modeling of polypropylene geogrids during constant rateâ€ofâ€strain loading. Polymer Engineering and Science, 2015, 55, 1617-1627.	3.1	26
89	Statistical analysis of the effective stress method and modifications for prediction of ultimate bond strength of soil nails. Acta Geotechnica, 2017, 12, 171-182.	5.7	26
90	Calibration of Resistance Factors for Load and Resistance Factor Design of Internal Limit States of Soil Nail Walls. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	25

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91	Analysis of Soil-Steel Bar Mat Pullout Models Using a Statistical Approach. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	3.0	24
92	Reliability-Based Internal Limit State Analysis and Design of Soil Nails Using Different Load and Resistance Models. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	24
93	Reliability analysis of geogrid installation damage test data in Japan. Soils and Foundations, 2015, 55, 393-403.	3.1	22
94	Reliability analysis of geogrid creep data in Japan. Soils and Foundations, 2014, 54, 608-620.	3.1	21
95	Deterministic and probabilistic prediction of facing deformations of geosynthetic-reinforced MSE walls using a response surface approach. Geotextiles and Geomembranes, 2016, 44, 813-823.	4.6	21
96	Deterministic and probabilistic assessment of margins of safety for internal stability of as-built PET strap reinforced soil walls. Geotextiles and Geomembranes, 2020, 48, 780-792.	4.6	20
97	An analytical expression for the dynamic active thrust from c-ï† soil backfill on retaining walls with wall friction and adhesion. Geomechanics and Engineering, 2012, 4, 209-218.	0.9	20
98	Reliability-Based Analysis of Internal Limit States for MSE Walls Using Steel-Strip Reinforcement. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	19
99	Comparison of Working Stress and Limit Equilibrium Behavior of Reinforced Soil Walls. , 2013, , .		18
100	Earthquake Load Attenuation Using EPS Geofoam Buffers in Rigid Wall Applications. Indian Geotechnical Journal, 2013, 43, 283-291.	1.4	17
101	Insights into geogrid–soil interaction using a transparent granular soil. Geotechnique Letters, 2017, 7, 179-183.	1.2	16
102	Calibration of Soil-Steel Grid Pullout Models Using a Statistical Approach. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	15
103	3D modelling of strip reinforced MSE walls. Acta Geotechnica, 2021, 16, 711-730.	5.7	15
104	Limit States Design Calibration for Internal Stability of Multi-Anchor Walls. Soils and Foundations, 2011, 51, 1051-1064.	3.1	14
105	Vertical Facing Panel-Joint Gap Analysis for Steel-Reinforced Soil Walls. International Journal of Geomechanics, 2016, 16, .	2.7	14
106	Probabilistic Prediction of Reinforcement Loads for Steel MSE Walls Using a Response Surface Method. International Journal of Geomechanics, 2018, 18, .	2.7	14
107	Hierarchical Bayesian approaches to statistical modelling of geotechnical data. Georisk, 2022, 16, 452-469.	3.5	14
108	Bayesian model checking, comparison and selection with emphasis on outlier detection for geotechnical reliability-based design. Computers and Geotechnics, 2019, 116, 103181.	4.7	13

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109	Performance-based analysis and design for internal stability of MSE walls. Georisk, 2019, 13, 214-225.	3.5	13
110	Calibration of PET strap pullout models using a statistical approach. Geosynthetics International, 2019, 26, 413-427.	2.9	13
111	Evaluation of Two Anchor Plate Capacity Models for Maw Systems. Soils and Foundations, 2011, 51, 885-895.	3.1	12
112	Probabilistic Tensile Strength Analysis of Steel Strips in MSE Walls Considering Corrosion. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	12
113	Seismic Bearing Capacity of Geosynthetic Reinforced Strip Footings Using Upper Bound Limit Analysis. International Journal of Geomechanics, 2022, 22, .	2.7	12
114	Reply to the discussions on "The influence of facing stiffness on the performance of two geosynthetic reinforced soil retaining wallsâ€Appears in Canadian Geotechnical Journal, <b>44</b> : 1479–1482 and <b>44</b> : 1483 Canadian Geotechnical Journal, 2007, 44, 1484-1490.	2.8	11
115	Statistical assessment of load model accuracy for steel grid-reinforced soil walls. Acta Geotechnica, 2019, 14, 57-70.	5.7	10
116	A Bayesian approach to reliability of MSE walls. Georisk, 2021, 15, 1-11.	3.5	10
117	Influence of Transient Flooding on Multi-Anchor Walls. Soils and Foundations, 2010, 50, 371-382.	3.1	10
118	Influence of corrosion on reliability-based design of steel grid MSE walls. Structural Safety, 2020, 84, 101914.	5.3	8
119	Reliability-based design and analysis for internal limit states of steel grid–reinforced mechanically stabilized earth walls. Canadian Geotechnical Journal, 2021, 58, 695-710.	2.8	7
120	Case study of a hybrid gabion basket geosynthetic reinforced soil wall. Proceedings of the Institution of Civil Engineers: Ground Improvement, 1997, 1, 9-17.	1.0	6
121	Influence of transient flooding on steel strip reinforced soil walls. Soils and Foundations, 2015, 55, 881-894.	3.1	6
122	Closure to "Predicted Loads in Steel Reinforced Soil Walls Using the AASHTO Simplified Method―by Richard J. Bathurst, Axel Nernheim, and Tony M. Allen. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 1307-1310.	3.0	5
123	Stability of multi-anchor soil walls after loss of toe support. Geotechnique, 2015, 65, 945-951.	4.0	5
124	Numerical simulation and parametric analysis of multi-anchor walls using the finite element method. Transportation Geotechnics, 2018, 15, 57-69.	4.5	5
125	LRFD Calibration of Internal Limit States for MSE Walls Using Steel Strip Reinforcement. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	4
126	Developments in MSE Wall Research and Design. Sustainable Civil Infrastructures, 2020, , 22-50.	0.2	4

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127	Load-resistance duality and case-specific sensitivity in reliability-based design. Acta Geotechnica, 2022, 17, 3067-3085.	5.7	4
128	LRFD Calibration of Metallic Reinforced Soil Walls. , 2013, , .		3
129	Stability of steel reinforced soil walls after footing failure. Proceedings of the Institution of Civil Engineers: Geotechnical Engineering, 2016, 169, 25-34.	1.6	3
130	Closure to "Improved Simplified Method for Prediction of Loads in Reinforced Soil Walls―by Tony M. Allen and Richard J. Bathurst. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, 07016019.	3.0	3
131	Influence of model type, bias and input parameter variability on reliability analysis for simple limit states with two load terms. Computers and Geotechnics, 2018, 97, 78-89.	4.7	3
132	Energy Grade Line Analysis of Tsunami run-up on the Sendai Plain after the 2011 Tohoku earthquake. Coastal Engineering, 2018, 140, 306-315.	4.0	3
133	Probabilistic Analysis of Layered Slopes with Linearly Increasing Cohesive Strength and 2D Spatial Variability of Soil Strength Parameters Using Non-Circular RLEM Approach. , 2018, , .		3
134	Modeling Soil-Facing Interface Interaction With Continuum Element Methodology. Frontiers in Built Environment, 2022, 8, .	2.3	3
135	Probabilistic Analysis of a MSE Wall Considering Spatial Variability of Soil Properties. , 2019, , .		2
136	TIME-DEPENDENT DEFORMATION AND STRENGTH CHARACTERISTICS OF GEOGRIDS DUE TO VISCOUS PROPERITES. Geosynthetics Engineering Journal, 2002, 17, 137-144.	0.1	2
137	EPS Seismic Buffers for Earthquake Load Attenuation against Rigid Retaining Walls. , 2011, , .		1
138	A Simple and Rigorous Approach for Probabilistic Internal Stability Analysis and Design of Reinforced Soil Walls. , 2019, , .		1
139	Response to discussion by S. H. Mirmoradi and M. Ehrlich on "Geosynthetic reinforcement stiffness for analytical and numerical modelling of reinforced soil structures―by Richard J. Bathurst1 and Fahimeh M. Naftchali2, Geotextiles and Geomembranes, 49 (2021) 921–940. Geotextiles and Geomembranes, 2022	4.6	1
140	Research on shock mitigation on circular tunnels using expanded polystyrene. , 2011, , .		0
141	Special Section on Geomechanics and Geosynthetics. International Journal of Geomechanics, 2012, 12, 339-339.	2.7	Ο
142	2011 Best Paper Award. Georisk, 2012, 6, 72-72.	3.5	0
143	<i>Corrigendum:</i> Reliability-based geotechnical design in 2014 Canadian Highway Bridge Design Code. Canadian Geotechnical Journal, 2017, 54, 1521-1521.	2.8	0
144	RELIABILITY ANALYSIS OF REINFORCED SOIL RETAINING WALLS BASED ON NORTH AMERICAN DESIGN CODES. Geosynthetics Engineering Journal, 2004, 19, 7-14.	0.1	0

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145	A Numerical Model for EPS Geofoam Seismic Buffers. , 2008, , 300-304.		0