Erik Vanem

List of Publications by Year
in descending order

92 papers	2,091 citations	186265 28 h-index	254184 43 g-index
95 all docs	95 docs citations	95 times ranked	1104 citing authors

#	Article	IF	Citations
1	Analysing the risk of LNG carrier operations. Reliability Engineering and System Safety, 2008, 93, 1328-1344.	8.9	141
2	Joint statistical models for significant wave height and wave period in a changing climate. Marine Structures, 2016, 49, 180-205.	3.8	138
3	A new approach to environmental contours for ocean engineering applications based on direct Monte Carlo simulations. Ocean Engineering, 2013, 60, 124-135.	4.3	99
4	Cost-effectiveness criteria for marine oil spill preventive measures. Reliability Engineering and System Safety, 2008, 93, 1354-1368.	8.9	76
5	Alternative environmental contours for structural reliability analysis. Structural Safety, 2015, 54, 32-45.	5.3	74
6	Projected changes in significant wave height toward the end of the 21st century: Northeast <scp>A</scp>tlantic. Journal of Geophysical Research: Oceans, 2017, 122, 3394-3403.	2.6	72
7	Designing for safety in passenger ships utilizing advanced evacuation analysesâ€"A risk based approach. Safety Science, 2006, 44, 111-135.	4.9	70
8	Identifying trends in the ocean wave climate by time series analyses of significant wave heightdata. Ocean Engineering, 2013, 61, 148-160.	4.3	63
9	Uncertainties in extreme value modelling of wave data in a climate change perspective. Journal of Ocean Engineering and Marine Energy, 2015, 1, 339-359.	1.7	63
10	Long-term time-dependent stochastic modelling of extreme waves. Stochastic Environmental Research and Risk Assessment, 2011, 25, 185-209.	4.0	60
11	Risk acceptance criterion for tanker oil spill risk reduction measures. Marine Pollution Bulletin, 2011, 62, 116-127.	5.0	56
12	AIS-Based Multiple Vessel Collision and Grounding Risk Identification based on Adaptive Safety Domain. Journal of Marine Science and Engineering, 2020, 8, 5.	2.6	56
13	On environmental contours for marine and coastal design. Ocean Engineering, 2020, 195, 106194.	4.3	54
14	A comparison study on the estimation of extreme structural response from different environmental contour methods. Marine Structures, 2017, 56, 137-162.	3.8	49
15	Stochastic modelling of long-term trends in the wave climate and its potential impact on ship structural loads. Applied Ocean Research, 2012, 37, 235-248.	4.1	46
16	Asymmetric copulaâ€"based distribution models for met-ocean data in offshore wind engineering applications. Wind Engineering, 2018, 42, 304-334.	1.9	46
17	Non-stationary extreme value models to account for trends and shifts in the extreme wave climate due to climate change. Applied Ocean Research, 2015, 52, 201-211.	4.1	45
18	A Bayesian hierarchical spatio-temporal model for significant wave height in the North Atlantic. Stochastic Environmental Research and Risk Assessment, 2012, 26, 609-632.	4.0	41

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19	Climate change and safe design of ship structures. Ocean Engineering, 2018, 149, 226-237.	4.3	41
20	Probabilistic analysis of offshore wind turbines under extreme resonant response: Application of environmental contour method. Applied Ocean Research, 2019, 93, 101947.	4.1	39
21	Ethics and fundamental principles of risk acceptance criteria. Safety Science, 2012, 50, 958-967.	4.9	37
22	Data-driven state of health modellingâ€"A review of state of the art and reflections on applications for maritime battery systems. Journal of Energy Storage, 2021, 43, 103158.	8.1	35
23	Ship speed prediction based on full scale sensor measurements of shaft thrust and environmental conditions. Ocean Engineering, 2018, 162, 316-330.	4.3	33
24	Alternative Environmental Contours for Marine Structural Designâ€"A Comparison Study1. Journal of Offshore Mechanics and Arctic Engineering, 2015, 137, .	1.2	32
25	Probabilistic design and reliability analysis of scour protections for offshore windfarms. Engineering Failure Analysis, 2018, 91, 291-305.	4.0	32
26	3-dimensional environmental contours based on a direct sampling method for structural reliability analysis of ships and offshore structures. Ships and Offshore Structures, 2019, 14, 74-85.	1.9	32
27	A simple approach to account for seasonality in the description of extreme ocean environments. Marine Systems and Ocean Technology, 2018, 13, 63-73.	1.0	31
28	Modelling ocean wave climate with a Bayesian hierarchical spaceâ€"time model and a log-transform of the data. Ocean Dynamics, 2012, 62, 355-375.	2.2	28
29	A regional extreme value analysis of ocean waves in a changing climate. Ocean Engineering, 2017, 144, 277-295.	4.3	28
30	A simulation study on the uncertainty of environmental contours due to sampling variability for different estimation methods. Applied Ocean Research, 2019, 91, 101870.	4.1	28
31	A benchmarking exercise for environmental contours. Ocean Engineering, 2021, 236, 109504.	4.3	26
32	Non-stationary extreme value analysis of sea states based on linear trends. Analysis of annual maxima series of significant wave height and peak period in the Mediterranean Sea. Coastal Engineering, 2021, 167, 103896.	4.0	24
33	Statistical description and modelling of extreme ocean wave conditions. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2019, 172, 124-132.	0.2	23
34	Comparing different contour methods with response-based methods for extreme ship response analysis. Marine Structures, 2020, 69, 102680.	3.8	22
35	Evaluating the cost-effectiveness of a monitoring system for improved evacuation from passenger ships. Safety Science, 2010, 48, 788-802.	4.9	21
36	Unsupervised anomaly detection based on clustering methods and sensor data on a marine diesel engine. Journal of Marine Engineering and Technology, 2021, 20, 217-234.	4.1	20

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37	Efficient on-line anomaly detection for ship systems in operation. Expert Systems With Applications, 2019, 121, 418-437.	7.6	20
38	Testbed Scenario Design Exploiting Traffic Big Data for Autonomous Ship Trials Under Multiple Conflicts With Collision/Grounding Risks and Spatio-Temporal Dependencies. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 7914-7930.	8.0	20
39	Fullest COLREGs Evaluation Using Fuzzy Logic for Collaborative Decision-Making Analysis of Autonomous Ships in Complex Situations. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 18433-18445.	8.0	20
40	Bivariate regional extreme value analysis for significant wave height and wave period. Applied Ocean Research, 2020, 101, 102266.	4.1	17
41	Modelling the effect of climate change on the wave climate of the worldâ€™s oceans. Ocean Science Journal, 2012, 47, 123-145.	1.3	14
42	Sequential sampling method using Gaussian process regression for estimating extreme structural response. Marine Structures, 2020, 72, 102780.	3.8	14
43	The effect of serial correlation in environmental conditions on estimates of extreme events. Ocean Engineering, 2021, 242, 110092.	4.3	14
44	Bayesian hierarchical spatio-temporal modelling of trends and future projections in the ocean wave climate with a $$ext{ CO }_2$$ CO 2 regression component. Environmental and Ecological Statistics, 2014, 21, 189-220.	3.5	13
45	Nonstationary fuzzy forecasting of wind and wave climate in very long-term scales. Journal of Ocean Engineering and Science, 2018, 3, 144-155.	4.3	12
46	Environmental contours for circularâ€linear variables based on the direct sampling method. Wind Energy, 2020, 23, 563-574.	4.2	12
47	Combined machine learning and physics-based models for estimating fuel consumption of cargo ships. Ocean Engineering, 2022, 255, 111435.	4.3	10
48	An application of sensor-based anomaly detection in the maritime industry. , 2016, , .		9
49	A Stochastic Model in Space and Time for Monthly Maximum Significant Wave Height. Quantitative Geology and Geostatistics, 2012, , 505-517.	0.1	9
50	A truncated, translated Weibull distribution for shallow water sea states. Coastal Engineering, 2022, 172, 104077.	4.0	9
51	Study on the Effect of Climate Change on Ship Responses Based on Nonlinear Simulations. Journal of Offshore Mechanics and Arctic Engineering, 2019, 141, .	1.2	8
52	A new Monte Carlo method for environmental contour estimation. , 2014, , 2091-2098.		8
53	Multivariable Fractional Polynomials for lithium-ion batteries degradation models under dynamic conditions. Journal of Energy Storage, 2022, 52, 104903.	8.1	8
54	Environmental contours for describing extreme ocean wave conditions based on combined datasets. Stochastic Environmental Research and Risk Assessment, 2019, 33, 957-971.	4.0	7

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55	AIS-based near-collision database generation and analysis of real collision avoidance manoeuvres. Journal of Navigation, 2021, 74, 985-1008.	1.7	7
56	Quantitative comparison of environmental contour approaches. Ocean Engineering, 2022, 245, 110374.	4.3	7
57	Spatiotemporal analysis of NORA10 data of significant wave height. Ocean Dynamics, 2014, 64, 879-893.	2.2	5
58	A Bayesian-Hierarchical Space-Time Model for Significant Wave Height Data. , 2011, , .		5
59	Evaluating properties of environmental contours. , 2017, , .		5
60	Standardized Risk Models for Formal Safety Assessment of Maritime Transportation. , 2009, , .		4
61	Bayesian Hierarchical Space-Time Models with Application to Significant Wave Height. Ocean Engineering & Oceanography, 2013, , .	0.2	4
62	A New Method for Environmental Contours in Marine Structural Design. , 2013, , .		4
63	Alternative Environmental Contours for Marine Structural Design: A Comparison Study. , 2014, , .		4
64	Cluster-Based Anomaly Detection in Condition Monitoring of a Marine Engine System. , 2018, , .		4
65	Environmental contours as Voronoi cells. Extremes, 2022, 25, 451-486.	1.0	4
66	Stochastic Models for Long-Term Prediction of Extreme Waves: A Literature Survey. , 2010, , .		3
67	Copula-Based Bivariate Modelling of Significant Wave Height and Wave Period and the Effects of Climate Change on the Joint Distribution. , 2016, , .		3
68	Cluster Based Anomaly Detection with Applications in the Maritime Industry. , 2017, , .		3
69	Convex environmental contours. Ocean Engineering, 2021, 235, 109366.	4.3	3
70	Optimised Use of Safety Interventions. , 2004, , 1264-1269.		3
71	A Stochastic Model for Long-Term Trends in Significant Wave Height With a CO2 Regression Component. , 2012, , .		3
72	An Illustration of the Effect of Climate Change on the Ocean Wave Climate - A Stochastic Model. , 0, , .		2

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73	Uncertainties in Extreme Value Analysis of Wave Climate Data and Wave Climate Projections. , 2015, , .		2
74	A Bayesian Hierarchical Space-Time Model for Significant Wave Height. Ocean Engineering & Oceanography, 2013, , 65-105.	0.2	2
75	Time Series Analysis of Significant Wave Height Data for Identification of Trends in the Ocean Wave Climate. , 2013, , .		1
76	Uncertainty of Environmental Contours due to Sampling Variability. , 2018, , .		1
77	Literature Survey on Stochastic Wave Models. Ocean Engineering & Oceanography, 2013, , 25-63.	0.2	1
78	Environmental contours for mixtures of distributions. , 2019, , .		1
79	On Environmental Contours for Marine and Coastal Design. , 2019, , .		1
80	Statistical Approximation to Synthetic Midship Hull Girder Stress Response. Journal of Ship Research, 2020, 64, 266-277.	1.1	1
81	Modelling Long-Term Trends in Significant Wave Height and its Potential Impacts on Ship Structural Loads. , 2013, , .		0
82	On the Influence of Environmental Contour Method in Estimating Extreme Structural Response. , 2017, , .		0
83	Climatic Forecasting of Wind and Waves Using Fuzzy Inference Systems. , 2017, , .		0
84	Application of the Tail Equivalent Linearization Method to wave bending moment and comparison with experimental data. Probabilistic Engineering Mechanics, 2021, 67, 103174.	2.7	0
85	Bayesian Hierarchical Modeling of the Ocean Windiness. Ocean Engineering & Oceanography, 2013, , 153-168.	0.2	0
86	Including a Log-Transform of the Data. Ocean Engineering & Oceanography, 2013, , 107-129.	0.2	0
87	CO $$_2$$ Regression Component for Future Projections. Ocean Engineering & Oceanography, 2013, , 131-152.	0.2	0
88	Case Study: Modeling the Effect of Climate Change on the Worldâ€™s Oceans. Ocean Engineering & Oceanography, 2013, , 185-210.	0.2	0
89	Application: Impacts on Ship Structural Loads. Ocean Engineering & Oceanography, 2013, , 169-184.	0.2	0
90	Comparison of Wind and Wave Extremes in Very Long-Term Climatic Scales. , 2018, , .		0

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91	Study on the Effect of Climate Change on Ship Responses Based on Nonlinear Simulations. , 2018, , .		0
92	Comparison of the Environmental Contour Method and Response-Based Analysis Using Response Emulator for Estimating Extreme Ship Responses. , 2019, , .		0