L BayÃ³n

List of Publications by Year
in descending order

76 papers	591 citations	567281 15 h-index	713466 21 g-index
76 all docs	76 docs citations	76 times ranked	347 citing authors

#	Article	IF	Citations
1	Development of a fiber daylighting system based on a small scale linear Fresnel reflector: Theoretical elements. Applied Energy, 2018, 212, 733-745.	10.1	33
2	Theoretical elements for the design of a small scale Linear Fresnel Reflector: Frontal and lateral views. Solar Energy, 2016, 132, 188-202.	6.1	32
3	Analysis of the tilt and azimuth angles of photovoltaic systems in non-ideal positions for urban applications. Applied Energy, 2022, 305, 117802.	10.1	31
4	Parametric study of the small scale linear Fresnel reflector. Renewable Energy, 2018, 116, 64-74.	8.9	30
5	Optimization of the length and position of the absorber tube in small-scale Linear Fresnel Concentrators. Renewable Energy, 2016, 99, 986-995.	8.9	27
6	Design and construction of a solar tracking system for small-scale linear Fresnel reflector with three movements. Applied Energy, 2021, 285, 116477.	10.1	27
7	A new formulation of the equivalent thermal in optimization of hydrothermal systems. Mathematical Problems in Engineering, 2002, 8, 181-196.	1.1	26
8	Mathematical modelling of the combined optimization of a pumped-storage hydro-plant and a wind park. Mathematical and Computer Modelling, 2013, 57, 2024-2028.	2.0	25
9	Predicting beam and diffuse horizontal irradiance using Fourier expansions. Renewable Energy, 2020, 154, 46-57.	8.9	23
10	A cost-energy based methodology for small-scale linear Fresnel reflectors on flat roofs of urban buildings. Renewable Energy, 2020, 146, 944-959.	8.9	20
11	Influence of solar tracking error on the performance of a small-scale linear Fresnel reflector. Renewable Energy, 2020, 162, 43-54.	8.9	19
12	A comparative economic study of two configurations of hydro-wind power plants. Energy, 2016, 112, 8-16.	8.8	18
13	Cost estimation relationships of a small scale linear Fresnel reflector. Renewable Energy, 2019, 134, 1273-1284.	8.9	18
14	A methodology for an optimal design of ground-mounted photovoltaic power plants. Applied Energy, 2022, 314, 118881.	10.1	16
15	New developments on equivalent thermal in hydrothermal optimization: an algorithm of approximation. Journal of Computational and Applied Mathematics, 2005, 175, 63-75.	2.0	15
16	Initial guess of the solution of dynamic optimization of chemical processes. Journal of Mathematical Chemistry, 2010, 48, 28-37.	1.5	15
17	A comparative study between racking systems for photovoltaic power systems. Renewable Energy, 2021, 180, 424-437.	8.9	14
18	A general algorithm for the optimization of photovoltaic modules layout on irregular rooftop shapes. Journal of Cleaner Production, 2022, 365, 132774.	9.3	13

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19	Optimization of the distribution of small scale linear Fresnel reflectors on roofs of urban buildings. Applied Mathematical Modelling, 2018, 59, 233-250.	4.2	12
20	Investigating the influence of longitudinal tilt angles on the performance of small scale linear Fresnel reflectors for urban applications. Renewable Energy, 2019, 143, 1581-1593.	8.9	12
21	A Bolza problem in hydrothermal optimization. Applied Mathematics and Computation, 2007, 184, 12-22.	2.2	10
22	The Best-or-Worst and the Postdoc problems. Journal of Combinatorial Optimization, 2018, 35, 703-723.	1.3	10
23	A constrained and non-smooth hydrothermal problem. Applied Mathematics and Computation, 2009, 209, 10-18.	2.2	9
24	An analytic solution for some separable convex quadratic programming problems with equality and inequality constraints. Journal of Mathematical Inequalities, 2010, , 453-465.	0.9	8
25	Nonsmooth optimization of hydrothermal problems. Journal of Computational and Applied Mathematics, 2006, 192, 11-19.	2.0	7
26	An optimization problem in deregulated electricity markets solved with the nonsmooth maximum principle. International Journal of Computer Mathematics, 2009, 86, 237-249.	1.8	6
27	Optimal control of a linear unbranched chemical process with $$n$$ n steps: the quasi-analytical solution. Journal of Mathematical Chemistry, 2014, 52, 1036-1049.	1.5	6
28	An economic dispatch algorithm of combined cycle units. International Journal of Computer Mathematics, 2014, 91, 269-277.	1.8	6
29	The Best-or-Worst and the Postdoc problems with random number of candidates. Journal of Combinatorial Optimization, 2019, 38, 86-110.	1.3	6
30	Non-uniform illumination in low concentration photovoltaic systems based on small-scale linear Fresnel reflectors. Energy, 2022, 239, 122217.	8.8	6
31	New developments in the application of Pontryagin's Principle for the hydrothermal optimization. IMA Journal of Mathematical Control and Information, 2005, 22, 377-393.	1.7	5
32	Optimization of SO2 and NO x Emissions in Thermal Plants. Journal of Mathematical Chemistry, 2006, 40, 29-41.	1.5	5
33	Solving linear unbranched pathways with Michaelisâ€"Menten kinetics using the Lambert W-function. Journal of Mathematical Chemistry, 2016, 54, 1351-1369.	1.5	5
34	An algorithm for quasi-linear control problems in the economics of renewable resources: The steady state and end state for the infinite and long-term horizon. Journal of Computational and Applied Mathematics, 2017, 309, 456-472.	2.0	5
35	Wind effects on heat loss from a receiver with longitudinal tilt angle of small-scale linear Fresnel reflectors for urban applications. Renewable Energy, 2020, 162, 2166-2181.	8.9	5
36	Influence of forecasting electricity prices in the optimization of complex hydrothermal systems. Journal of Computational and Applied Mathematics, 2009, 232, 262-274.	2.0	4

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37	An algorithm for bang–bang control of fixed-head hydroplants. International Journal of Computer Mathematics, 2011, 88, 1949-1959.	1.8	4
38	Algorithm for calculating the analytic solution for economic dispatch with multiple fuel units. Computers and Mathematics With Applications, 2011, 62, 2225-2234.	2.7	4
39	Real-time optimization of wind farms and fixed-head pumped-storage hydro-plants. International Journal of Computer Mathematics, 2013, 90, 2147-2160.	1.8	4
40	Sensitivity analysis of a linear and unbranched chemical process with n steps. Journal of Mathematical Chemistry, 2015, 53, 925-940.	1.5	4
41	Irreversible linear pathways in enzymatic reactions: analytical solution using the homotopy perturbation method. Journal of Mathematical Chemistry, 2020, 58, 273-291.	1.5	4
42	An environmentally constrained economic dispatch: CFBC boilers in the day-ahead market. International Journal of Computer Mathematics, 2008, 85, 345-358.	1.8	3
43	New developments in the application of optimal control theory to therapeutic protocols. Mathematical Biosciences, 2016, 272, 34-43.	1.9	3
44	Cyclic coordinate descent in a class of bang–singular–bang problems. Journal of Computational and Applied Mathematics, 2016, 291, 304-316.	2.0	3
45	Influence of enzyme production dynamics on the optimal control of a linear unbranched chemical process. Journal of Mathematical Chemistry, 2019, 57, 1330-1343.	1.5	3
46	Influence of the elevation-storage curve in the optimization of hydroplants. International Journal for Simulation and Multidisciplinary Design Optimization, 2009, 3, 326-331.	1.1	3
47	An application of the algorithm of the cyclic coordinate descent in multidimensional optimization problems with constrained speed. Numerical Algorithms, 2009, 52, 129-149.	1.9	2
48	The explicit solution of the profit maximization problem with box-constrained inputs. Applied Mathematics and Computation, 2011, 217, 8705-8715.	2.2	2
49	Optimization of a Pumped-Storage Fixed-Head Hydroplant: The Bang-Singular-Bang Solution. Mathematical Problems in Engineering, 2011, 2011, 1-11.	1.1	2
50	A quasi-linear algorithm for calculating the infimal convolution of convex quadratic functions. Journal of Computational and Applied Mathematics, 2012, 236, 2990-2997.	2.0	2
51	The profit maximization problem in economies of scale. Journal of Computational and Applied Mathematics, 2012, 236, 3065-3072.	2.0	2
52	The operation of infimal/supremal convolution in mathematical economics. International Journal of Computer Mathematics, 2016, 93, 735-748.	1.8	2
53	Mid-term bio-economic optimization of multi-species fisheries. Applied Mathematical Modelling, 2019, 66, 548-561.	4.2	2
54	A new algorithm for the optimization of a simple hydrothermal problem. Communications in Nonlinear Science and Numerical Simulation, 2004, 9, 197-207.	3.3	1

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55	Forecasting Electricity Prices in an Optimization Hydrothermal Problem. AIP Conference Proceedings, 2007, , .	0.4	1
56	The Cyclic Coordinate Descent in Hydrothermal Optimization Problems with Non-Regular Lagrangian. AIP Conference Proceedings, 2007, , .	0.4	1
57	Numerical approximation to ODEs using the error functional. Proceedings of the American Mathematical Society, 2012, 140, 4295-4308.	0.8	1
58	Cyclic coordinate descent in hydrothermal nonsmooth problems. Numerical Algorithms, 2012, 59, 227-247.	1.9	1
59	A comparison between a hydro-wind plant and wind speed forecasting using ARIMA models. , 2014, , .		1
60	Generalization of the Firmâ€™s Profit Maximization Problem: An Algorithm for the Analytical and Nonsmooth Solution. Computational Economics, 2014, 43, 1-14.	2.6	1
61	New computational and statistical models in science and economics. International Journal of Computer Mathematics, 2015, 92, 1729-1732.	1.8	1
62	Using the blow-up technique for a modified Lindemann mechanism. Journal of Mathematical Chemistry, 2021, 59, 119-130.	1.5	1
63	A Bolzaâ€™s Problem in Hydrothermal Optimization. , 2019, , 57-60.		1
64	The first Weierstrass-Erdmann condition in variational problems involving differential inclusions. Mathematical Inequalities and Applications, 2004, , 457-469.	0.2	1
65	The valve points of the thermal cost function: A Hydrothermal Problem with non-regular Lagrangian. , 2019, , 40-44.		1
66	The multi-returning secretary problem. Discrete Applied Mathematics, 2022, 320, 33-46.	0.9	1
67	An Optimal Control Technique for Solving Differential Equations. , 2009, , .		0
68	The analytic solution of the firm's cost-minimization problem with box constraints and the Cobb-Douglas model. , 2012, , .		0
69	An Exact Algorithm for the Continuous Quadratic Knapsack Problem via Infimal Convolution. Intelligent Systems Reference Library, 2013, , 97-127.	1.2	0
70	A general algorithm for control problems with variable parameters and quasi-linear models. AIP Conference Proceedings, 2015, , .	0.4	0
71	Economic Study of Problems of Depletion of Several Interrelated Non-renewable Resources. Computational Economics, 2016, 48, 503-521.	2.6	0
72	CMMSE-17: general analytical laws for metabolic pathways. Journal of Mathematical Chemistry, 2018, 56, 1813-1825.	1.5	0

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73	Optimal control of counter-terrorism tactics. Applied Mathematics and Computation, 2019, 347, 477-491.	2.2	0
74	Computational Approach for the Firmâ€™s Cost Minimization Problem Using the Selective Infimal Convolution Operator. Computational Economics, 2019, 54, 535-549.	2.6	0
75	A Optimization Technique of Hydrothermal Systems Using Calculus of Variations. Renewable Energy and Power Quality Journal, 2003, 1, 204-211.	0.2	0
76	NEW DEVELOPMENTS ON EQUIVALENT THERMAL IN HYDROTHERMAL OPTIMIZATION.: AN ALGORITHM OF APPROXIMATION. , 2003, , .		0