Suzanne Lenhart

List of Publications by Year
in descending order

131	3,974	236925 25	197818 49
papers	citations	h-index	g-index

139	139	139	2762
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimal Control Applied to Biological Models. , 0, , .		954
2	Optimal control of the chemotherapy of HIV. Journal of Mathematical Biology, 1997, 35, 775-792.	1.9	385
3	Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130551.	4.0	215
4	Modeling Optimal Intervention Strategies for Cholera. Bulletin of Mathematical Biology, 2010, 72, 2004-2018.	1.9	184
5	Optimal control of treatments in a two-strain tuberculosis model. Discrete and Continuous Dynamical Systems - Series B, 2002, 2, 473-482.	0.9	181
6	Backward Bifurcation and Optimal Control in Transmission Dynamics of West Nile Virus. Bulletin of Mathematical Biology, 2010, 72, 1006-1028.	1.9	133
7	Optimal control of treatment in a mathematical model of chronic myelogenous leukemia. Mathematical Biosciences, 2007, 210, 143-156.	1.9	97
8	Optimal control of vaccine distribution in a rabies metapopulation model. Mathematical Biosciences and Engineering, 2008, 5, 219-238.	1.9	68
9	Optimal control of a competitive system with age-structure. Journal of Mathematical Analysis and Applications, 2004, 291, 526-537.	1.0	58
10	Transmission dynamics of West Nile virus in mosquitoes and corvids and non-corvids. Journal of Mathematical Biology, 2014, 68, 1553-1582.	1.9	53
11	OPTIMAL CONTROL OF A CONVECTIVE-DIFFUSIVE FLUID PROBLEM. Mathematical Models and Methods in Applied Sciences, 1995, 05, 225-237.	3.3	51
12	Bilinear Optimal Control of the Velocity Term in a Kirchhoff Plate Equation. Journal of Mathematical Analysis and Applications, 1999, 238, 451-467.	1.0	51
13	Optimal Harvesting in an Age-Structured Predatorâ€“Prey Model. Applied Mathematics and Optimization, 2006, 54, 1-15.	1.6	47
14	Optimal control of vaccination in a vector-borne reactionâ€“diffusion model applied to Zika virus. Journal of Mathematical Biology, 2019, 79, 1077-1104.	1.9	42
15	HIVâ€“TB co-infection treatment: Modeling and optimal control theory perspectives. Journal of Computational and Applied Mathematics, 2016, 307, 143-161.	2.0	39
16	Optimal vaccine distribution in a spatiotemporal epidemic model with an application to rabies and raccoons. Journal of Mathematical Analysis and Applications, 2011, 378, 603-619.	1.0	38
17	Optimal control of boundary habitat hostility for interacting species. Mathematical Methods in the Applied Sciences, 1999, 22, 1061-1077.	2.3	36
18	Solving the dynamical inverse problem for the SchrÃ¶dinger equation by the boundary control method. Inverse Problems, 2002, 18, 349-361.	2.0	36

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19	An age-structured model for the spread of epidemic cholera: Analysis and simulation. Nonlinear Analysis: Real World Applications, 2011, 12, 3483-3498.	1.7	36
20	Agent-based model for Johneâ€™s disease dynamics in a dairy herd. Veterinary Research, 2015, 46, 68.	3.0	35
21	Optimal control for management of an invasive plant species. Mathematical Biosciences and Engineering, 2007, 4, 101-112.	1.9	32
22	Integro-differential equations associated with optimal stopping time of a piecewise-deterministic process. Stochastics, 1985, 15, 183-207.	0.6	30
23	Optimal Control of Bilateral Obstacle Problems. SIAM Journal on Control and Optimization, 2004, 43, 240-255.	2.1	30
24	The impact of spatial arrangements on epidemic disease dynamics and intervention strategies. Journal of Biological Dynamics, 2016, 10, 222-249.	1.7	29
25	The Dynamics of HPV Infection and Cervical Cancer Cells. Bulletin of Mathematical Biology, 2016, 78, 4-20.	1.9	27
26	An Obstacle Control Problem with a Source Term. Applied Mathematics and Optimization, 2002, 47, 79-95.	1.6	26
27	Optimal control applied to nativeâ€“invasive population dynamics. Journal of Biological Dynamics, 2007, 1, 413-426.	1.7	26
28	OPTIMAL CONTROL OF THE SPREAD OF MALARIA SUPERINFECTIVITY. Journal of Biological Systems, 2013, 21, 1340002.	1.4	26
29	Modeling the role of public health education in Ebola virus disease outbreaks in Sudan. Infectious Disease Modelling, 2017, 2, 323-340.	1.9	26
30	Rabies in raccoons: optimal control for a discrete time model on a spatial grid. Journal of Biological Dynamics, 2007, 1, 379-393.	1.7	23
31	Optimal Control of Drug Therapy in a Hepatitis B Model. Applied Sciences (Switzerland), 2016, 6, 219.	2.5	23
32	Optimal control of a rabies epidemic model with a birth pulse. Journal of Biological Dynamics, 2010, 4, 43-58.	1.7	22
33	Optimal harvesting strategies for timber and non-timber forest products in tropical ecosystems. Theoretical Ecology, 2016, 9, 287-297.	1.0	22
34	An immuno-epidemiological model for Johneâ€™s disease in cattle. Veterinary Research, 2015, 46, 69.	3.0	21
35	Host density and habitat structure influence host contact rates and Batrachochytrium salamandrivorans transmission. Scientific Reports, 2020, 10, 5584.	3.3	21
36	Optimal Strategy for Cardiopulmonary Resuscitation with Continuous Chest Compression. Academic Emergency Medicine, 2006, 13, 715-721.	1.8	20

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37	OPTIMAL HARVESTING OF A SPATIALLY EXPLICIT FISHERY MODEL. Natural Resource Modelling, 2009, 22, 173-211.	2.0	20
38	Use of optimal control models to predict treatment time for managing tick-borne disease. Journal of Biological Dynamics, 2011, 5, 517-530.	1.7	20
39	Order of events matter: comparing discrete models for optimal control of species augmentation. Journal of Biological Dynamics, 2012, 6, 31-49.	1.7	19
40	Modeling effective transmission pathways and control of the worldâ€™s most successful parasite. Theoretical Population Biology, 2013, 86, 50-61.	1.1	19
41	Integro-differential operators associated with diffusion processes with jumps. Applied Mathematics and Optimization, 1982, 9, 177-191.	1.6	18
42	OPTIMAL CONTROL THEORY APPLIED TO A DIFFERENCE EQUATION MODEL FOR CARDIOPULMONARY RESUSCITATION. Mathematical Models and Methods in Applied Sciences, 2005, 15, 1519-1531.	3.3	18
43	Optimal control of continuous systems with impulse controls. Optimal Control Applications and Methods, 2015, 36, 535-549.	2.1	18
44	Optimal Control of the Obstacle for a Parabolic Variational Inequality. Journal of Mathematical Analysis and Applications, 2002, 268, 602-614.	1.0	17
45	Optimal control of the obstacle in semilinear variational inequalities. Positivity, 2004, 8, 229-242.	0.7	17
46	OPTIMAL DYNAMIC HARVEST OF A MOBILE RENEWABLE RESOURCE. Natural Resource Modelling, 2009, 22, 322-343.	2.0	17
47	Mathematical analysis of a model for the transmission dynamics of bovine tuberculosis. Mathematical Methods in the Applied Sciences, 2011, 34, 1873-1887.	2.3	16
48	OPTIMAL FISH HARVESTING FOR A POPULATION MODELED BY A NONLINEAR PARABOLIC PARTIAL DIFFERENTIAL EQUATION. Natural Resource Modelling, 2016, 29, 36-70.	2.0	16
49	Optimal control applied to a model for species augmentation. Mathematical Biosciences and Engineering, 2008, 5, 669-680.	1.9	15
50	Modeling a single season ofAedes albopictuspopulations based on host-seeking data in response to temperature and precipitation in eastern Tennessee. Journal of Vector Ecology, 2018, 43, 138-147.	1.0	15
51	Optimal control applied to a thoraco-abdominal CPR model. Mathematical Medicine and Biology, 2008, 25, 157-170.	1.2	14
52	AN INDIVIDUALâ€BASED MODEL FOR FERAL HOGS IN GREAT SMOKY MOUNTAINS NATIONAL PARK. Natural Resource Modelling, 2015, 28, 18-36.	2.0	14
53	Optimal Controls for Stochastic Partial Differential Equations with an Application in Population Modeling. SIAM Journal on Control and Optimization, 2016, 54, 495-535.	2.1	14
54	Immune therapeutic strategies using optimal controls with L 1 and L 2 type objectives. Mathematical Biosciences, 2017, 290, 9-21.	1.9	14

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55	Towards Building a Sustainable Future: Positioning Ecological Modelling for Impact in Ecosystems Management. Bulletin of Mathematical Biology, 2021, 83, 107.	1.9	14
56	Harvesting control in an integrodifference population model with concave growth term. Nonlinear Analysis: Hybrid Systems, 2007, 1, 417-429.	3.5	13
57	CONTROL OF A METAPOPULATION HARVESTING MODEL FOR BLACK BEARS. Natural Resource Modelling, 2008, 18, 307-321.	2.0	13
58	Optimal Control in Individual-Based Models: Implications from Aggregated Methods. American Naturalist, 2013, 181, 64-77.	2.1	13
59	MODELING FOR COST ANALYSIS OF JOHNE'S DISEASE CONTROL BASED ON EVELISA TESTING. Journal of Biological Systems, 2013, 21, 1340010.	1.4	13
60	A dynamical model for bark beetle outbreaks. Journal of Theoretical Biology, 2016, 407, 25-37.	1.7	13
61	Comparing intervention strategies for reducing Clostridioides difficile transmission in acute healthcare settings: an agent-based modeling study. BMC Infectious Diseases, 2020, 20, 799.	2.9	13
62	Modeling COVIDâ€19: Forecasting and analyzing the dynamics of the outbreaks in Hubei and Turkey. Mathematical Methods in the Applied Sciences, 2022, 45, 6481-6494.	2.3	12
63	The parabolic bellman equation. Nonlinear Analysis: Theory, Methods & Applications, 1981, 5, 765-773.	1.1	11
64	Optimal harvesting during an invasion of a sublethal plant pathogen. Environment and Development Economics, 2007, 12, 673-686.	1.5	11
65	OPTIMAL CONTROL APPLIED IN AN ANTHRAX EPIZOOTIC MODEL. Journal of Biological Systems, 2016, 24, 495-517.	1.4	11
66	A mathematical model for within-host Toxoplasma gondii invasion dynamics. Mathematical Biosciences and Engineering, 2012, 9, 647-662.	1.9	11
67	Optimal harvesting in an integrodifference population model. Optimal Control Applications and Methods, 2006, 27, 61-75.	2.1	10
68	Optimal Control of Gypsy Moth Populations. Bulletin of Mathematical Biology, 2008, 70, 398-411.	1.9	10
69	Optimal control of vaccination rate in an epidemiological model of Clostridium difficile transmission. Journal of Mathematical Biology, 2017, 75, 1693-1713.	1.9	10
70	Application of optimal control theory to bioremediation. Journal of Computational and Applied Mathematics, 2000, 114, 81-102.	2.0	9
71	Controlling synchrony in a network of Kuramoto oscillators with time-varying coupling. Physica D: Nonlinear Phenomena, 2015, 301-302, 36-47.	2.8	9
72	Antimicrobial Stewardship and Environmental Decontamination for the Control of Clostridium difficile Transmission in Healthcare Settings. Bulletin of Mathematical Biology, 2017, 79, 36-62.	1.9	9

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73	A Mathematical Model of Contact Tracing during the 2014â€“2016 West African Ebola Outbreak. Mathematics, 2021, 9, 608.	2.2	9
74	Stability analysis of rabies model with vaccination effect and culling in dogs. Applied Mathematical Sciences, 0, 9, 3805-3817.	0.1	9
75	A vaccination model for COVID-19 in Gauteng, South Africa. Infectious Disease Modelling, 2022, 7, 333-345.	1.9	9
76	Optimal Control of Vaccination in an Age-Structured Cholera Model. , 2016, , 221-248.		8
77	Optimal Culling and Biocontrol in a Predatorâ€“Prey Model. Bulletin of Mathematical Biology, 2017, 79, 88-116.	1.9	8
78	Short Communication: Bilinear optimal control of a Kirchoff plate to a desired profile. Optimal Control Applications and Methods, 1997, 18, 217-226.	2.1	7
79	Identification problem for the wave equation with Neumann data input and Dirichlet data observations. Nonlinear Analysis: Theory, Methods & Applications, 2003, 52, 1777-1795.	1.1	7
80	AN OPTIMAL CONTROL MODEL FOR THE SURFACE RUNOFF CONTAMINATION OF A LARGE RIVER BASIN. Natural Resource Modelling, 1999, 12, 175-195.	2.0	7
81	Assessing the economic tradeâ€offs between prevention and suppression of forest fires. Natural Resource Modelling, 2018, 31, .	2.0	7
82	Modeling the macrophage-anthrax spore interaction: Implications for early host-pathogen interactions. Mathematical Biosciences, 2018, 305, 18-28.	1.9	7
83	Marine reserves and optimal dynamic harvesting when fishing damages habitat. Theoretical Ecology, 2019, 12, 131-144.	1.0	7
84	Optimal sustainable fishery management of the Black Sea anchovy with food chain modeling framework. Natural Resource Modelling, 2020, 33, .	2.0	7
85	A new mathematical model studying imperfect vaccination: Optimal control analysis. Journal of Mathematical Analysis and Applications, 2021, 500, 125132.	1.0	7
86	Optimal control of advective direction in reaction-diffusion population models. Evolution Equations and Control Theory, 2012, 1, 81-107.	1.3	7
87	RKH SPACE METHODS FOR LOW LEVEL MONITORING AND CONTROL OF NONLINEAR SYSTEMS. Mathematical Models and Methods in Applied Sciences, 1996, 06, 77-96.	3.3	6
88	RKH Space Methods for Low Level Monitoring and Control of Nonlinear Systems II. A Vector-Case Example: The Lorenz System. Mathematical Models and Methods in Applied Sciences, 1997, 07, 823-845.	3.3	6
89	Optimal Control of a Convective Boundary Condition in a Thermistor Problem. SIAM Journal on Control and Optimization, 2008, 47, 20-39.	2.1	6
90	Preparing the â€œNewâ€•Biologist of the Future: Student Research at the Interface of Mathematics and Biology. CBE Life Sciences Education, 2010, 9, 311-315.	2.3	6

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91	Optimal control with MANF treatment of photoreceptor degeneration. Mathematical Medicine and Biology, 2019, 37, 1-21.	1.2	6
92	A Risk-Structured Mathematical Model of Buruli Ulcer Disease in Ghana. Mathematics of Planet Earth, 2019, , 109-128.	0.1	6
93	Management strategies in a malaria model combining human and transmission-blocking vaccines. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 977-1000.	0.9	6
94	Geographic disparities and predictors of COVID-19 hospitalization risks in the St. Louis Area, Missouri (USA). BMC Public Health, 2022, 22, 321.	2.9	6
95	Optimal control of integrodifference equations with growth-harvesting-dispersal order. Discrete and Continuous Dynamical Systems - Series B, 2012, 17, 2281-2298.	0.9	5
96	Modeling Interventions in the Owned Cat Population to Decrease Numbers, Knox County, TN. Journal of Applied Animal Welfare Science, 2016, 19, 396-407.	1.0	5
97	A METAPOPULATION MODEL FOR FERAL HOGS IN GREAT SMOKY MOUNTAINS NATIONAL PARK. Natural Resource Modelling, 2016, 29, 71-97.	2.0	5
98	EBOLA OUTBREAKS AND INTERNATIONAL TRAVEL RESTRICTIONS: CASE STUDIES OF CENTRAL AND WEST AFRICA REGIONS. Journal of Biological Systems, 2020, 28, 431-452.	1.4	5
99	Development of the BioCalculus Assessment (BCA). CBE Life Sciences Education, 2020, 19, ar6.	2.3	5
100	Optimal control of harvest timing in discrete population models. Natural Resource Modelling, 2021, 34, e12321.	2.0	5
101	Modeling environmental transmission of MAP infection in dairy cows. Mathematical Biosciences and Engineering, 2017, 14, 1001-1017.	1.9	5
102	OPTIMAL RESOURCE ALLOCATION FOR A DIFFUSIVE POPULATION MODEL. Journal of Biological Systems, 2020, 28, 945-976.	1.4	5
103	ON THE BIOECONOMICS OF MARINE RESERVES WHEN DISPERSAL EVOLVES. Natural Resource Modelling, 2015, 28, 456-474.	2.0	4
104	Optimal control of integrodifference equations in a pest-pathogen system. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 1759-1783.	0.9	4
105	MODELING THE EFFECT OF VACCINES ON CHOLERA TRANSMISSION. Journal of Biological Systems, 2015, 23, 323-338.	1.4	4
106	Connecting with Teachers through Modeling in Mathematical Biology. Bulletin of Mathematical Biology, 2020, 82, 98.	1.9	4
107	Controlled Stochastic Partial Differential Equations for Rabbits on a Grassland. Acta Mathematicae Applicatae Sinica, 2020, 36, 262-282.	0.7	4
108	Mathematical modeling of the influence of cultural practices on cholera infections in Cameroon. Mathematical Biosciences and Engineering, 2021, 18, 8374-8391.	1.9	4

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109	Political economy of renewable resource federalism. Ecological Applications, 2021, 31, e02276.	3.8	4
110	Modeling the Effect of HIV/AIDS Stigma on HIV Infection Dynamics in Kenya. Bulletin of Mathematical Biology, 2021, 83, 55.	1.9	4
111	A Data-Driven Mathematical Model of the Heroin and Fentanyl Epidemic in Tennessee. Bulletin of Mathematical Biology, 2021, 83, 97.	1.9	4
112	SOLVING A CROP PROBLEM BY AN OPTIMAL CONTROL METHOD. Natural Resource Modelling, 2005, 18, 323-346.	2.0	3
113	Using optimal control theory to identify network structures that foster synchrony. Physica D: Nonlinear Phenomena, 2012, 241, 574-582.	2.8	3
114	Illustrating Optimal Control Applications with Discrete and Continuous Features. Fields Institute Communications, 2013, , 209-238.	1.3	3
115	AN AGE STRUCTURE MODEL WITH IMPULSE ACTIONS FOR LEPTOSPIROSIS IN LIVESTOCK CATTLE. Journal of Biological Systems, 2021, 29, 75-105.	1.4	3
116	La Crosse virus spread within the mosquito population in Knox County, TN. PLoS ONE, 2021, 16, e0249811.	2.5	3
117	Advection control in parabolic PDE systems for competitive populations. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 1049-1072.	0.9	2
118	Study on the order of events in optimal control of a harvesting problem modeled by integrodifference equations. Evolution Equations and Control Theory, 2013, 2, 749-769.	1.3	1
119	Mathematically modeling the effect of touch frequency on the environmental transmission of Clostridioides difficile in healthcare settings. Mathematical Biosciences, 2021, 340, 108666.	1.9	1
120	Governance structure affects transboundary disease management under alternative objectives. BMC Public Health, 2021, 21, 1782.	2.9	1
121	Bellman equation with integro-differential operators. , 1982, , .		0
122	The mathematics of marriage: dynamic linear modelsby John M.BGottman, James D.BMurray, Catherine C.BSwanson, Rebecca Tyson, and KristinBR. Swanson,B2002. Bradford Book, Massachusetts Institute of Technology Press, pp.B403, $42.95, ISBN 0-262-07226-2. Bulletin of Mathematical Biology, 2004, 66, 1459-1461.	1.9	0
123	Evaluating wild hog preferences to guide control strategies in the Great Smoky Mountains National Park. Natural Resource Modelling, 2017, 30, .	2.0	0
124	Optimal Control of a PDE Model of an Invasive Species in a River. Mathematics, 2019, 7, 975.	2.2	0
125	Modeling the average population of La Crosse vectors in Knox County, Tennessee. Letters in Biomathematics, 2019, 6, 20-31.	0.1	0
126	Control of a consumerâ€resource agentâ€based model using partial differential equation approximation. Optimal Control Applications and Methods, 2022, 43, 178-197.	2.1	0

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127	RECOVERING THE POTENTIAL IN THE SCHRÃ–DINGER EQUATION FROM THE N-D MAP. , 2002, , .		0
128	Preface on the special issue of Discrete and Continuous Dynamical Systems- Series B in honor of Chris Cosner on the occasion of his 60th birthday. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, i-ii.	0.9	0
129	Balancing Prevention and Suppression of Forest Fires with Fuel Management as a Stock. The IMA Volumes in Mathematics and Its Applications, 2019, , 235-259.	0.5	0
130	Evidence for Multiple Transmission Routes for Pseudorabies in Wild Hogs. Mathematics of Planet Earth, 2021, , 37-56.	0.1	0
131	Optimal control of continuous systems with impulse controls. Optimal Control Applications and Methods, 2022, 43, 588-588.	2.1	0