Francois Dufour

List of Publications by Year in Descending Order

90 papers	790 citations	15 h-index	23 g-index
97 ext. papers	936 ext. citations	1.6 avg, IF	4.38 L-index

#	Paper	IF	Citations
90	Maximizing the probability of visiting a set infinitely often for a countable state space Markov decision process. *Journal of Mathematical Analysis and Applications*, **2022**, 505, 125639	1.1	
89	Integro-differential optimality equations for the risk-sensitive control of piecewise deterministic Markov processes. *Mathematical Methods of Operations Research*, **2021**, 93, 327-357	1	0
88	On the equivalence of the integral and differential Bellman equations in impulse control problems. *International Journal of Control*, **2020**, 1-14	1.5	
87	Power-of-d-Choices with Memory: Fluid Limit and Optimality. *Mathematics of Operations Research*, **2020**, 45, 862-888	1.5	5
86	A Convex Programming Approach for Discrete-Time Markov Decision Processes under the Expected Total Reward Criterion. *SIAM Journal on Control and Optimization*, **2020**, 58, 2535-2566	1.9	
85	On the Expected Total Reward with Unbounded Returns for Markov Decision Processes. *Applied Mathematics and Optimization*, **2020**, 82, 433-450	1.5	1
84	Hamilton-Jacobi-Bellman inequality for the average control of piecewise deterministic Markov processes. *Stochastics*, **2019**, 91, 817-835	0.6	
83	Numerical Approximations for Discounted Continuous Time Markov Decision Processes. *The IMA Volumes in Mathematics and Its Applications*, **2019**, 147-171	0.5	
82	Approximation of Discounted Minimax Markov Control Problems and Zero-Sum Markov Games Using Hausdorff and Wasserstein Distances. *Dynamic Games and Applications*, **2019**, 9, 68-102	1.1	
81	Stochastic control of observer trajectories in passive tracking with acoustic signal propagation optimisation. *IET Radar, Sonar and Navigation*, **2018**, 12, 112-120	1.4	4
80	Zero-Sum Discounted Reward Criterion Games for Piecewise Deterministic Markov Processes. *Applied Mathematics and Optimization*, **2018**, 78, 587-611	1.5	0
79	Computable approximations for average Markov decision processes in continuous time. *Journal of Applied Probability*, **2018**, 55, 571-592	0.8	1
78	Numerical Method for Control of Piecewise-deterministic Markov Processes **2018**, 147-172		1
77	Controlling IL-7 Injections in HIV-Infected Patients. *Bulletin of Mathematical Biology*, **2018**, 80, 2349-2377	2.1	1
76	Optimal strategies for impulse control of piecewise deterministic Markov processes. *Automatica*, **2017**, 77, 219-229	5.7	5
75	Partially observed optimal stopping problem for discrete-time Markov processes. *4or*, **2017**, 15, 277-302	1.4	4
74	Piecewise optimal trajectories of observer for bearings-only tracking by quantization **2017**,		3

(2013-2016)

73	Conditions for the Solvability of the Linear Programming Formulation for Constrained Discounted Markov Decision Processes. *Applied Mathematics and Optimization*, **2016**, 74, 27-51	1.5	5
72	Impulsive Control for Continuous-Time Markov Decision Processes: A Linear Programming Approach. *Applied Mathematics and Optimization*, **2016**, 74, 129-161	1.5	9
71	Optimal impulsive control of piecewise deterministic Markov processes. *Stochastics*, **2016**, 88, 1073-1098	0.6	9
70	Computable approximations for continuous-time Markov decision processes on Borel spaces based on empirical measures. *Journal of Mathematical Analysis and Applications*, **2016**, 443, 1323-1361	1.1	7
69	Constrained and Unconstrained Optimal Discounted Control of Piecewise Deterministic Markov Processes. *SIAM Journal on Control and Optimization*, **2016**, 54, 1444-1474	1.9	12
68	Approximation of average cost Markov decision processes using empirical distributions and concentration inequalities. *Stochastics*, **2015**, 87, 273-307	0.6	13
67	Impulsive Control for Continuous-Time Markov Decision Processes. *Advances in Applied Probability*, **2015**, 47, 106-127	0.7	2
66	**2015**,		6
65	Impulsive Control for Continuous-Time Markov Decision Processes. *Advances in Applied Probability*, **2015**, 47, 106-127	0.7	8
64	A linear programming formulation for constrained discounted continuous control for piecewise deterministic Markov processes. *Journal of Mathematical Analysis and Applications*, **2015**, 424, 892-914	1.1	7
63	Non-Parametric Estimation of the Conditional Distribution of the Interjumping Times for Piecewise-Deterministic Markov Processes. *Scandinavian Journal of Statistics*, **2014**, 41, 950-969	0.8	11
62	Stochastic approximations of constrained discounted Markov decision processes. *Journal of Mathematical Analysis and Applications*, **2014**, 413, 856-879	1.1	12
61	Piecewise Deterministic Markov Processes based approach applied to an offshore oil production system. *Reliability Engineering and System Safety*, **2014**, 126, 126-134	6.3	18
60	Finite Linear Programming Approximations of Constrained Discounted Markov Decision Processes. *SIAM Journal on Control and Optimization*, **2013**, 51, 1298-1324	1.9	26
59	Optimal stopping for partially observed piecewise-deterministic Markov processes. *Stochastic Processes and Their Applications*, **2013**, 123, 3201-3238	1.1	12
58	The Expected Total Cost Criterion for Markov Decision Processes under Constraints. *Advances in Applied Probability*, **2013**, 45, 837-859	0.7	5
57	Nonparametric estimation of the jump rate for non-homogeneous marked renewal processes. *Annales De Llinstitut Henri Poincare (B) Probability and Statistics*, **2013**, 49,	1.3	7
56	The Expected Total Cost Criterion for Markov Decision Processes under Constraints. *Advances in Applied Probability*, **2013**, 45, 837-859	0.7	3

55	Continuous Average Control of Piecewise Deterministic Markov Processes. *SpringerBriefs in Mathematics*, **2013**,	0.6	23
54	Numerical method for impulse control of piecewise deterministic Markov processes. *Automatica*, **2012**, 48, 779-793	5.7	12
53	Approximation of Markov decision processes with general state space. *Journal of Mathematical Analysis and Applications*, **2012**, 388, 1254-1267	1.1	26
52	Singularly Perturbed Discounted Markov Control Processes in a General State Space. *SIAM Journal on Control and Optimization*, **2012**, 50, 720-747	1.9	8
51	Average control of Markov decision processes with Feller transition probabilities and general action spaces. *Journal of Mathematical Analysis and Applications*, **2012**, 396, 58-69	1.1	9
50	Stochastic control for underwater optimal trajectories **2012**,		2
49	The Expected Total Cost Criterion for Markov Decision Processes under Constraints: A Convex Analytic Approach. *Advances in Applied Probability*, **2012**, 44, 774-793	0.7	8
48	On the existence of strict optimal controls for constrained, controlled Markov processes in continuous time. *Stochastics*, **2012**, 84, 55-78	0.6	10
47	Optimal stopping for the predictive maintenance of a structure subject to corrosion. *Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability*, **2012**, 226, 169-181	0.8	4
46	Numerical Methods for the Exit Time of a Piecewise-Deterministic Markov Process. *Advances in Applied Probability*, **2012**, 44, 196-225	0.7	3
45	Numerical Methods for the Exit Time of a Piecewise-Deterministic Markov Process. *Advances in Applied Probability*, **2012**, 44, 196-225	0.7	7
44	The Expected Total Cost Criterion for Markov Decision Processes under Constraints: A Convex Analytic Approach. *Advances in Applied Probability*, **2012**, 44, 774-793	0.7	7
43	Numerical method for expectations of piecewise deterministic Markov processes. *Communications in Applied Mathematics and Computational Science*, **2012**, 7, 63-104	1.1	6
42	Approximation of Infinite Horizon Discounted Cost Markov Decision Processes **2012**, 59-76		2
41	Approximation of the value function of an impulse control problem of Piecewise Deterministic Markov Processes. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2011**, 44, 3474-3479		0
40	Singular Perturbation for the Discounted Continuous Control of Piecewise Deterministic Markov Processes. *Applied Mathematics and Optimization*, **2011**, 63, 357-384	1.5	11
39	Multiobjective Stopping Problem for Discrete-Time Markov Processes: Convex Analytic Approach. *Journal of Applied Probability*, **2010**, 47, 947-966	0.8	7
38	Average Continuous Control of Piecewise Deterministic Markov Processes. *SIAM Journal on Control and Optimization*, **2010**, 48, 4262-4291	1.9	6

37	Singular perturbation for the discounted continuous control of piecewise deterministic Markov processes **2010**,		1
36	Numerical method for optimal stopping of piecewise deterministic Markov processes. *Annals of Applied Probability*, **2010**, 20,	2	21
35	Multiobjective Stopping Problem for Discrete-Time Markov Processes: Convex Analytic Approach. *Journal of Applied Probability*, **2010**, 47, 947-966	0.8	4
34	The Policy Iteration Algorithm for Average Continuous Control of Piecewise Deterministic Markov Processes. *Applied Mathematics and Optimization*, **2010**, 62, 185-204	1.5	2
33	The Vanishing Discount Approach for the Average Continuous Control of Piecewise Deterministic Markov Processes. *Journal of Applied Probability*, **2009**, 46, 1157-1183	0.8	7
32	Almost Sure Stabilization for Feedback Controls of Regime-Switching Linear Systems With a Hidden Markov Chain. *IEEE Transactions on Automatic Control*, **2009**, 54, 2114-2125	5.9	18
31	Numerical method for optimal stopping of hybrid processes. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 114-119		0
30	The Vanishing Discount Approach for the Average Continuous Control of Piecewise Deterministic Markov Processes. *Journal of Applied Probability*, **2009**, 46, 1157-1183	0.8	5
29	Stability and Ergodicity of Piecewise Deterministic Markov Processes. *SIAM Journal on Control and Optimization*, **2008**, 47, 1053-1077	1.9	51
28	Stability and ergodicity of piecewise deterministic Markov processes **2008**,		1
27	Relaxed long run average continuous control of piecewise deterministic Markov processes **2007**,		1
26	Necessary conditions for optimal singular stochastic control problems. *Stochastics*, **2007**, 79, 469-504	0.6	9
25	On The Performance of Gaussian Mixture Estimation Techniques for Dicrete-Time Jump Markov Linear Systems **2006**,		1
24	Maximum Principle for Singular Stochastic Control Problems. *SIAM Journal on Control and Optimization*, **2006**, 45, 668-698	1.9	22
23	Ergodic properties and ergodic decompositions of continuous-time Markov processes. *Journal of Applied Probability*, **2006**, 43, 767-781	0.8	2
22	Ergodic properties and ergodic decompositions of continuous-time Markov processes. *Journal of Applied Probability*, **2006**, 43, 767-781	0.8	5
21	State and Mode Estimation for Discrete-Time Jump Markov Systems. *SIAM Journal on Control and Optimization*, **2005**, 44, 1081-1104	1.9	27
20	SINGULAR STOCHASTIC MAXIMUM PRINCIPLE. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 29-34		

19	A sufficient condition for the existence of an invariant probability measure for Markov processes. *Journal of Applied Probability*, **2005**, 42, 873-878	0.8	5
18	On the ergodic decomposition for a class of Markov chains. *Stochastic Processes and Their Applications*, **2005**, 115, 401-415	1.1	7
17	A sufficient condition for the existence of an invariant probability measure for Markov processes. *Journal of Applied Probability*, **2005**, 42, 873-878	0.8	2
16	Singular Stochastic Control Problems. *SIAM Journal on Control and Optimization*, **2004**, 43, 708-730	1.9	22
15	On the Poisson Equation for Piecewise-Deterministic Markov Processes. *SIAM Journal on Control and Optimization*, **2003**, 42, 985-1001	1.9	10
14	Generalized Solutions in Nonlinear Stochastic Control Problems. *SIAM Journal on Control and Optimization*, **2002**, 40, 1724-1745	1.9	14
13	Necessary and sufficient conditions for non-singular invariant probability measures for Feller Markov chains. *Statistics and Probability Letters*, **2001**, 53, 47-57	0.6	2
12	Discrete-time estimation of a Markov chain with marked point process observations. Application to Markovian jump filtering. *IEEE Transactions on Automatic Control*, **2001**, 45, 903-908	5.9	9
11	Invariant probability measures for a class of Feller Markov chains. *Statistics and Probability Letters*, **2000**, 50, 13-21	0.6	5
10	Filtering with Discrete State Observations. *Applied Mathematics and Optimization*, **1999**, 40, 259-272	1.5	29
9	Stability of Piecewise-Deterministic Markov Processes. *SIAM Journal on Control and Optimization*, **1999**, 37, 1483-1502	1.9	31
8	Adaptive control of linear systems with Markov perturbations. *IEEE Transactions on Automatic Control*, **1998**, 43, 351-372	5.9	34
7	Exact hybrid filters in discrete time. *IEEE Transactions on Automatic Control*, **1996**, 41, 1807-1810	5.9	44
6	An image-based filter for discrete-time markovian jump linear systems. *Automatica*, **1996**, 32, 241-247	5.7	35
5	. *IEEE Transactions on Automatic Control*, **1994**, 39, 2354-2357	5.9	11
4	An Algorithmic Estimation Scheme for Hybrid Stochastic Systems		2
3	Exact Smoothers for Discrete-Time Hybrid Stochastic Systems		1
2	Average Continuous Control of Piecewise Deterministic Markov Processes		1