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2018

2018

Optimal Algorithms for Non-Smooth Distributed Optimization in Networks

Kevin Scaman, Francis Bach, Sébastien Bubeck, Yin Tat Lee, Laurent Massoulié

NIPS 2018 | December 2018

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2017

2017

Online Auctions and Multi-scale Online Learning

Sébastien Bubeck, Nikhil Devanur, Zhiyi Huang, Rad Niazadeh

18th ACM conference on Economics and Computation (EC'17) | May 2017

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Local Max-Cut In Smoothed Polynomial Time

Omer Angel, Sébastien Bubeck, Yuval Peres, Fan Wei

April 2017

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Optimal Algorithms For Smooth and Strongly Convex Distributed Optimization in Networks

Kevin Scaman, Francis Bach, Sébastien Bubeck, Yin Tat Lee, Laurent Massoulié

April 2017

arXiv:1702.08704 [math.OC]

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2016

2016

Basic models and questions in statistical network analysis

Miklos Z. Racz, Sébastien Bubeck

September 2016

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Kernel-Based Methods For Bandit Convex Optimization

Sébastien Bubeck, Ronen Eldan, Yin Tat Lee

July 2016

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On Paths, Stars and Wyes In Trees

Sébastien Bubeck, Katherine Edwards, Horia Mania, Cathryn Supko

arXiv:1601.01950 [math.CO] | January 2016

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Testing for high-dimensional geometry in random graphs

Sébastien Bubeck, Jian Ding, Ronen Eldan, Miklos Z. Racz

Random Structures & Algorithms | January 2016, Vol 49: pp. 503-532

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2015

2015

Multi-Scale Exploration of Convex Functions and Bandit Convex Optimization

Sébastien Bubeck, Ronen Eldan

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arXiv:1507.06580v1 [math.MG] | July 2015

Best Paper Award

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Sampling from a log-concave distribution with Projected Langevin Monte Carlo

Sébastien Bubeck, Ronen Eldan, Joseph Lehec

July 2015

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A Geometric Alternative To Nesterov's Accelerated Gradient Descent

Sébastien Bubeck, Yin Tat Lee, Mohit Singh

June 2015

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The Entropic Barrier: A Simple and Optimal Universal Self-Concordant Barrier

Sébastien Bubeck, Ronen Eldan

April 2015

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Bandit Convex Optimization: \sqrt{T} Regret in One Dimension

Sébastien Bubeck, Ofer Dekel, Tomer Koren, Yuval Peres

February 2015

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Convex Optimization: Algorithms and Complexity

Sébastien Bubeck

Foundations and Trends in Machine Learning | January 2015, Vol 8(4): pp. 231-357

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2014

2014

Testing For High-Dimensional Geometry In Random Graphs

Sébastien Bubeck, Jian Ding, Ronen Eldan, Miklós Z. Rácz

November 2014

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Finding Adam In Random Growing Trees

Sébastien Bubeck, Luc Devroye, Gábor Lugosi

Random Structures and Algorithms | November 2014

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From trees to seeds: on the inference of the seed from large trees in the uniform attachment model

Sébastien Bubeck, Ronen Eldan, Elchanan Mossel, Miklos Z. Racz

September 2014

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Most Correlated Arms Identification

Che-Yu Liu, Sébastien Bubeck

COLT | April 2014

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Regret in Online Combinatorial Optimization

Jean-Yves Audibert, Sébastien Bubeck, Gábor Lugosi

Mathematics of Operations Research | March 2014, Vol 39(1): pp. 31-45

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lil' UCB : An Optimal Exploration Algorithm for Multi-Armed Bandits

Kevin Jamieson, Matthew Malloy, Robert Nowak, Sébastien Bubeck

COLT | January 2014

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2013

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Prior-Free And Prior-Dependent Regret Bounds For Thompson Sampling

Sébastien Bubeck

NIPS'13 Proceedings of the 26th International Conference on Neural Information Processing Systems | December 2013

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Bandits With Heavy Tail

Sébastien Bubeck, Nicolò Cesa-Bianchi, Gábor Lugosi

IEEE Transactions On Information Theory | November 2013

Published by IEEE

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Bounded Regret In Stochastic Multi-Armed Bandits

Sébastien Bubeck, Vianney Perchet, Philippe Rigollet

JMLR: Workshop and Conference Proceedings | August 2013

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On Finding the Largest Mean Among Many

Kevin Jamieson, Matthew Malloy, Robert Nowak, Sébastien Bubeck

arXiv:1306.3917v1 | June 2013

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Detecting Positive Correlations in a Multivariate Sample

Ery Arias-Castro, Sébastien Bubeck, Gábor Lugosi

March 2013

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Optimal Discovery with Probabilistic Expert Advice: Finite Time Analysis and Macroscopic Optimality

Sébastien Bubeck, Damien Ernst, Aurélien Garivier

Journal of Machine Learning Research | February 2013, Vol 14: pp. 601-623

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Multiple Identifications in Multi-Armed Bandits

Sébastien Bubeck, Tengyao Wang, Nitin Viswanathan

Proceedings of the 30th International Conference on Machine Learning, Atlanta, Georgia, USA, | January 2013

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2012

2012

How The Initialization Affects The Stability Of The K-Means Algorithm

Sébastien Bubeck, Marina Meilă, Ulrike Von Luxburg

ESAIM: Probability and Statistics | May 2012

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The Best of Both Worlds: Stochastic and Adversarial Bandits

Sébastien Bubeck, Aleksandrs Slivkins

JMLR: Workshop and Conference Proceedings | February 2012

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Towards Minimax Policies for Online Linear Optimization with Bandit Feedback

Sébastien Bubeck, Nicolò Cesa-Bianchi, Sham M. Kakade

JMLR: Workshop and Conference Proceedings | February 2012

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Regret Analysis of Stochastic and Nonstochastic Multi-armed Bandit Problems

Sébastien Bubeck, Nicolò Cesa-Bianchi

Foundations and Trends® in Machine Learning | January 2012

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Optimal Discovery With Probabilistic Expert Advice

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Sébastien Bubeck, Damien Ernst, Aurélien Garivier

51st IEEE Conference on Decision and Control (CDC) | January 2012

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Detection of Correlations

Ery Arias-Castro, Sébastien Bubeck, Gábor Lugosi

January 2012

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2011

2011

Introduction to Online Optimization

Sébastien Bubeck

December 2011

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Minimax Policies for Combinatorial Prediction Games

Jean-Yves Audibert, Sébastien Bubeck, Gábor Lugosi

24th Annual Conference on Learning Theory, 2011 | May 2011

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X-Armed Bandits

Sébastien Bubeck, Rémi Munos, Gilles Stoltz

Journal of Machine Learning Research (JMLR) | May 2011, Vol 12: pp. 1655-1695

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Multi-Bandit Best Arm Identification

Victor Gabillon, Mohammad Ghavamzadeh, Alessandro Lazaric, Sébastien Bubeck

NIPS | January 2011

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Pure Exploration in Finitely-Armed and Continuous-Armed Bandits

Sébastien Bubeck, Rémi Munos, Gilles Stoltz

Theoretical Computer Science | January 2011

Published by Elsevier

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2010

2010

Open Loop Optimistic Planning

Sébastien Bubeck, Rémi Munos

COLT 2010 - The 23rd Conference on Learning Theory, Haifa, Israel | June 2010

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Bandits Games and Clustering Foundations

Sébastien Bubeck

June 2010

Jacques Neveu prize 2010, runner-up for the french AI prize 2011, runner-up for the Gilles Kahn prize 2010

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Regret Bounds and Minimax Policies Under Partial Monitoring

Jean-Yves Audibert, Sébastien Bubeck

Journal of Machine Learning Research | March 2010, Vol 11: pp. 2785-2836

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Best Arm Identification in Multi-Armed Bandits

Jean-Yves Audibert, Sébastien Bubeck

Proceedings of the 23rd Annual Conference on Learning Theory (COLT) | January 2010

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Bandit View on Noisy Optimization

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Jean-Yves Audibert, [Sébastien Bubeck](#), Rémi Munos

Chapter 1, in ***Optimization for Machine Learning***

Published by MIT Press | 2010 | Optimization for Machine Learning edition

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2009

2009

[Nearest Neighbor Clustering: A Baseline Method for Consistent Clustering with Arbitrary Objective Functions](#)

[Sébastien Bubeck](#), Ulrike von Luxburg

Journal of Machine Learning Research | March 2009, Vol 10: pp. 657-698

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[Pure Exploration in Multi-Armed Bandits Problems](#)

[Sébastien Bubeck](#), Rémi Munos, Gilles Stoltz

Proceedings of the 20th International Conference on Algorithmic Learning Theory (ALT) | January 2009

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[Minimax Policies for Adversarial and Stochastic Bandits](#)

Jean-Yves Audibert, [Sébastien Bubeck](#)

Proceedings of the 22nd Annual Conference on Learning Theory (COLT) | January 2009

Best Student Paper Award

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[Online Optimization in \$\epsilon\$ -Armed Bandits](#)

[Sébastien Bubeck](#), Rémi Munos, Gilles Stoltz, Csaba Szepesvári

Advances in Neural Information Processing Systems (NIPS) | January 2009

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2008

2008

[Consistent Minimization of Clustering Objective Functions](#)

Ulrike von Luxburg, [Sébastien Bubeck](#), Stefanie Jegelka, Michael Kaufmann

Advances in Neural Information Processing Systems (NIPS) | January 2008

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