Alexandre Proutiere
Publication list

The five most cited papers are listed first. Citation data is taken from Google Scholar (June 1, 2017): total number of citations: 4567, h-index: 36. In most publications, authors are listed in alphabetic order, a policy I tried to keep throughout my career.

Five most cited papers

Statistical bandwidth sharing: a study of congestion at flow level
S. Ben Fredj, T. Bonald, **A. Proutiere**, G. Regnie, and J. Roberts
Proc. of **ACM Sigcomm**, 2001
Number of citations: 507

Wireless downlink data channels: User performance and cell dimensioning
T. Bonald, **A. Proutiere**
Proc. of **ACM Mobicom**, 2003
Number of citations: 290

Adaptive Network Coding and Scheduling for Maximizing Throughput in Wireless Networks
P. Chaporkar, **A. Proutiere**
Proc. of **ACM Mobicom**, 2007
Number of citations: 221

Rethinking Indoor Wireless Mesh Design: Low Power, Low Frequency, Full-duplex
B. Radunovic, D. Gunawardena, P. Key, **A. Proutiere**, N. Singh, V. Balan, and G. Dejean
Proc. of **WiMesh** (SECON Workshop), IEEE Communications Society, 2010
Number of citations: 209

A queueing analysis of max-min fairness, proportional fairness and balanced fairness
T. Bonald, L. Massoulie, **A. Proutiere** and J. Virtamo
Queueing Systems and Applications, vol. 53, 2006
Number of citations: 194

1. Peer-reviewed Original Articles

[J1] *Consistent Change Point Detection for Piecewise Constant Signals With Normalized Fused LASSO*
A. Owrang, M. Malek-Mohammadi, **A. Proutiere** and M. Jansson
IEEE Signal Processing Letters, to appear, 2017

[J2] *Stochastic Online Shortest Path Routing: The Value of Feedback (*)*
M. Sadegh Talebi, Zhenhua Zou, Richard Combes**, A. Proutiere**, and Mikael Johansson
IEEE Trans. on Automatic Control, to appear, 2017

[J3] *Emergent Behaviors over Signed Random Dynamical Networks: Relative-State-Flipping Model*
G. Shi, **A. Proutiere**, M. Johansson, J. S. Baras and K. H. Johansson
IEEE Trans. on Control of Network Systems, 2016

[J4] *The Evolution of Beliefs over Signed Social Networks*
G. Shi, **A. Proutiere**, M. Johansson, J. S. Baras and K. H. Johansson
Operations Research, 2016

[J5] *Network Synchronization with Convexity*
G. Shi, **A. Proutiere** and K. H. Johansson.
SIAM Journal on Control and Optimization, 2015

[J6] *Optimal Distributed Scheduling in Wireless Networks under the SINR Interference Model*
P. Chaporkar, S. Magureanu, **A. Proutiere**
ACM/IEEE trans. on Networking, 2015

[J7] *Feedback policies for measurement-based quantum state manipulation*
S. Fu, G. Shi, **A. Proutiere** and M. R. James
Physical Review A, 90, Dec. 2014

[J8] *Dynamic Rate and Channel Selection in Cognitive Radio Systems (*)*
R. Combes, **A. Proutiere**
IEEE JSAC, 2014

[J9] *Emergent Behaviors over Signed Random Dynamical Networks: State-flipping Model*
G. Shi**, A. Proutiere**, M. Johansson, J. Baras, and K. Johansson
IEEE Trans. on Control of Network Systems, 2015

[J10] *Asymptotic stability region of slotted-Aloha*
C. Bordenave, D. McDonald, **A. Proutiere**
IEEE Trans. on Information Theory, 2012

[J11] *On Downlink Capacity of Cellular Data Networks with WLAN/WPAN Relays*
B. Radunovic, **A. Proutiere**
ACM/IEEE Trans. on Networking, 2012

[J12] *Load balancing via Random Local Search in Closed and Open systems*
A. Ganesh, S. Lilienthal, D. Manjunath, **A. Proutiere**, and F. Simatos
Queueing Systems and Applications, 2012

[J13] *A particle system in interaction with a rapidly varying environment: Mean field limits and applications*
C. Bordenave, D. Mc Donald, **A. Proutiere**
Networks and Heterogeneous Media, vol. 5-1, March 2010

[J14] *Towards Utility-optimal Random Access without Message Passing*
J. Liu, **A. Proutiere**, Y. Yi, M. Chiang, V. Poor.
Journal of Wireless Communications and Mobile Computing, vol. 10-1, 2010

[J15] *Networked estimation under contention-based medium access*
M. Rabi, L. Stabellini, **A. Proutiere**, and M. Johansson
International Journal on Robust and Nonlinear Control, to appear, 2009

[J16] *Stability, Fairness and Performance: A Flow-level Study on Non-convex and Time-varying Rate Regions*
J. Liu, **A. Proutiere**, Y. Yi, M. Chiang and V. Poor
IEEE Trans. on Information Theory, vol. 55-8, 2009

[J17] *Flow-Level Performance and Capacity of Wireless Networks with User Mobility*
T. Bonald, S. Borst, N. Hegde, M. Jonckheere, **A. Proutiere**
Erlang Centenary Special issue of **Queueing Systems and Applications**, 2009

[J18] *A queueing analysis of data networks*
T. Bonald, **A. Proutiere**
Book chapter in: *Queueing Networks: A Fundamental Approach*, Eds R. Boucherie, and N. Van Dijk, Kluwer, to appear, 2009
Number of citations: 10

[J19] *Optimal joint probing and transmission strategy for maximizing throughput in wireless systems*
P Chaporkar, **A. Proutiere**
IEEE Journal on Selected Areas in Communications, vol. 26, Oct 2008

[J20] *Interacting queues with server selection and coordinated scheduling, application to cellular data networks*
S. Borst, N. Hegde, **A. Proutiere**
Annals of Operation Research, Sept 2008

[J21] *Performance Analysis of Wireless Multihop Data Networks*
N. Hegde, **A. Proutiere**
Wireless systems and Mobility in the Next generation Internet, Lecture Notes in Computer Science, vol 4369, Springer Berlin / Heidelberg, 2007

[J22] *Random Multi-access Algorithms in Networks with Partial Interaction: A Mean Field Analysis*
C. Bordenave, D. McDonald, **A. Proutiere**
Lecture Notes in Computer Science, Managing Traffic Performance in Converged Networks, Vol 4516/2007, pp 779-790, Springer-Verlag, Berlin, 2007

[J23] *A queueing analysis of max-min fairness, proportional fairness and balanced fairness*
T. Bonald, L. Massoulie, **A. Proutiere** and J. Virtamo
Queueing Systems and Applications, vol. 53, 2006

[J24] *Inter-cell coordination in wireless data networks*
T. Bonald, S. Borst, **A. Proutiere**
European Transactions on Telecommunications, 2006

[J25] *On stochastic bounds for monotonic processor sharing networks*
T. Bonald, **A. Proutiere**
Queueing Systems and Applications, vol. 47, 2004

[J26] *On performance bounds for balanced fairness*
T. Bonald, **A. Proutiere**
Performance Evaluation, vol. 55, 2004

[J27] *Modeling integration of streaming and data traffic*
F. Delcoigne, **A. Proutiere** and G. Regnie
Performance Evaluation, vol. 55, 2004

[J28] *Insensitive bandwidth sharing in data networks*
T. Bonald, **A. Proutiere**
Queueing Systems and Applications, vol. 44, 2003

2. Peer-reviewed Conference Contributions
2.A Top-tier conference papers (the three major machine learning conferences, and ACM single track conferences)

[C1] *Optimal Cluster Recovery in the Labeled Stochastic Block Model (*)*
S. Yun, **A. Proutiere**
Proc. of **NIPS** 2016

[C2] *Combinatorial Bandits Revisited (*)*
R. Combes, S. Talebi, **A. Proutiere**, M. Lelarge
Proc. of **NIPS** 2015

[C3] *Fast and Memory Optimal Low Rank Approximation*
S. Yun, M. Lelarge, **A. Proutiere**
Proc. of **NIPS** 2015

[C4] *Distributed Proportionally Fair Allocation in Heterogeneous Systems*
S. Yun, **A. Proutiere**
Proc. of **ACM Sigmetrics,** 2015

[C5] *Learning to Rank: Regret Lower Bounds and Efficient Algorithms (*)*
R. Combes, S. Magureanu, **A. Proutiere**
Proc. of **ACM Sigmetrics** 2015

[C6] *Greedy-Bayes for Targeted News Dissemination*
L. Massoulie, P. Ohannessian**, A. Proutiere**
Proc. of **ACM Sigmetrics** 2015

[C7] *Streaming, Memory-limited Algorithms for Community detection*
M. Lelarge, **A. Proutiere**, S. Yun
Proc. of **NIPS**, 2014

[C8] *Unimodal Bandits: Regret Lower Bounds and Optimal Algorithms (*)*
R. Combes, **A. Proutiere**
Proc. of **ICML**, 2014

[C9] *Lipschitz Bandits: Regret Lower Bounds and Optimal Algorithms (*)*
R. Combes, S. Magureanu, **A. Proutiere**
Proc. of **COLT**, 2014

[C10] *Community Detection via Random and Adaptive Sampling*
S. Yun, **A. Proutiere**
Proc. of **COLT**, 2014

[C11] *Two-target Algorithms for Infinite-Armed Bandits*
T. Bonald, **A. Proutiere**
Proc. of **NIPS**, 2013

[C12] *Impact of Storage on the Efficiency and Prices in Real-time Energy Markets*
N. Gast, J.-Y. LeBoudec, **A. Proutiere**, and D. Tomozei
Proc. of **ACM e-Energy**, 2013

[C13] *Dynamic Channel, Rate Selection and Scheduling for White Spaces*
B. Radunovic, **A. Proutiere**, D. Gunawardena, and P. Key
Proc. of **ACM CoNEXT**, 2011

[C14] *Scoop: Decentralized and Opportunistic Multicasting of Information Streams*
D. Gunawardena, T. Karagiannis, E. Santos-Neto, **A. Proutiere**, and M. Vojnovic
Proc. of **ACM MOBICOM**, 2011

[C15] *Load balancing via Random Local Search in Closed and Open systems*
A. Ganesh, S. Lilienthal, D. Manjunath, **A. Proutiere**, and F. Simatos
Proc. of **ACM Sigmetrics**, 2010, **Best paper award**

[C16] *Characterizing Podcast Services: Publishing, Usage, and Dissemination*
D. Gunawardena, T. Karagiannis, **A. Proutiere**, and Milan Vojnovic
Proc. of **ACM IMC 2009**, Association for Computing Machinery, Inc., November 2009

[C17] *Scheduling with limited information in wireless systems*
P. Chaporkar, **A. Proutiere**, H. Asnani, A. Karandikar
Proc. of **ACM Mobihoc**, 2009, **Best paper award**

[C18] *Routing games with elastic traffic*
P. Key, **A. Proutiere**
Poster in proc. of **ACM Sigmetrics**, 2009

[C19] *Complexity in Wireless Scheduling: Impact and Tradeoffs*
Y. Yi, **A. Proutiere** and M. Chiang
Proc. of **ACM Mobihoc**, 2008

[C20] *Performance of Multi-acces Control algorithms: an asymptotic approach*
C. Bordenave, D. McDonald, **A. Proutiere**
Proc. of **ACM Sigmetrics/Performance**, 2008

[C21] *Adaptive Network Coding and Scheduling for Maximizing Throughput in Wireless Networks*
P. Chaporkar, **A. Proutiere**
Proc. of **ACM Mobicom**, 2007

[C22] *Flow-level Stability of networks with non-convex and time-varying rate regions*
J. Liu, **A. Proutiere,** Y. Yi, M. Chiang, and V. Poor
Proc. of **ACM Sigmetrics**, 2007

[C23] *Capacity of wireless networks with intra- and inter-cell mobility*
S. Borst, N. Hegde, **A. Proutiere**
Proc. of **IEEE Infocom**, 2006

[C24] *How Mobility impacts the Flow-level Performance in Wireless Data Systems*
T. Bonald, S. Borst, **A. Proutiere**
Proc. of **IEEE Infocom**, 2004

[C25] *Insensitive load balancing*
T. Bonald, M. Jonckheere, **A. Proutiere**
Proc. of **ACM Sigmetrics/Performance**, 2004

[C26] *On performance bounds for the integration of elastic and adaptive streaming traffic*
T. Bonald, **A. Proutiere**
Proc. of **ACM Sigmetrics/Performance**, 2004, **Best paper award**

[C27] *Wireless Data Performance in Multi-Cell Scenarios*
T. Bonald, S. Borst, N. Hegde, **A. Proutiere**
Proc. of **ACM Sigmetrics/Performance**, 2004

[C28] *Wireless downlink data channels: User performance and cell dimensioning*
T. Bonald, **A. Proutiere**
Proc. of **ACM Mobicom**, 2003

[C29] *Statistical bandwidth sharing: a study of congestion at flow level*
S. Ben Fredj, T. Bonald, **A. Proutiere,** G. Regnie, and J. Roberts
Proc. of **ACM Sigcomm**, 2001

[C30] *Statistical performance guarantees for streaming using Expedited Forwarding*
T. Bonald, **A. Proutiere** and J. Roberts
Proc. of **IEEE Infocom**, 2001

2.B Other conferences

[C31] *Cluster-aided Mobility Prediction*
J. Jeong, M. Leconte**, A. Proutiere**
Proc. of **IEEE Infocom**, 2016

[C32] *An Optimal Algorithm for Stochastic Matroid Bandit Optimization*
S. Talebi, **A. Proutiere**
Proc. of **AAMAS**, 2016

[C33] *Viral Clustering: A Robust Method to Extract Structures in Heterogeneous Datasets*
V. Petrosyan, **A. Proutiere**
Proc. of **AAAI**, 2016

[C34] *Decentralized Load Balancing in Heterogeneous Systems*
S. Yun, **A. Proutiere**
Proc. of **CISS**, 2014

[C35] *Optimal Rate Sampling in 802.11 Systems*
R. Combes, **A. Proutiere**, D. Yun, J. Ok, and Y. Yi
Proc. of **IEEE Infocom**, 2014

[C36] *Spectrum Bandit Optimisation*
M. Lelarge, **A. Proutiere** and S. Talebi
Proc. of **ITW**, 2013

[C37] *Optimal Distributed Scheduling in Wireless Networks under the SINR Interference Model*
P. Chaporkar, **A. Proutiere**
Proc. of **Allerton**, 2013

[C38] *Continuous-time Distributed Optimization of Homogeneous Dynamics*
G. Shi, **A. Proutiere**, K. Johansson
Proc. of **Allerton**, 2013

[C39] *Randomized Consensus with Attractive and Repulsive Links*
G. Shi, **A. Proutiere**, K. Johansson
Proc. of **IEEE CDC**, 2013

[C40] *Simulation-Based Optimization Algorithms with Applications to Dynamic Spectrum Access*
N. Hegde, **A. Proutiere**
Proc. of **CISS**, 2012

[C41] *Stability of random access protocols in multi-channel networks*
A. Proutiere
Proc. of **Informs Applied Probability conf**., 2011.

[C42] *Dynamic channel and rate selection for white space wireless systems*
B. Radunovic, **A. Proutiere**
Proc. of **Informs Applied Probability conf**., 2011

[C43] *Insensitivity and stability of random-access networks*
P. van de Ven, S. Borst, J. van Leeuwaarden, **A. Proutiere**
Proc. of **Informs Applied Probability conf**., 2011

[C44] *Repeated auctions with budget constraints: optimal bidding strategies and equilibria*
R. Gummadi, P. Key, **A. Proutiere**
Proc. of **Informs Applied Probability conf.**, 2011

[C45] *Backlog-based random access in wireless networks: fluid limits and delay issues*
N. Bouman, J. van Leeuwaarden, Sem Borst, **A. Proutiere**
Proc. of **ITC**, 2011

[C46] *Efficient and Fair MAC for Wireless Networks with Self-interference Cancellation*
N. Singh, D. Gunawardena, B. Radunovic, , **A. Proutiere**, H. V. Balan, and P. Key
Proc. of **WiOpt**, 2011

[C47] *Learning to Optimally Exploit Multi-channel Diversity in Wireless Systems*
P. Chaporkar, **A. Proutiere** and H. Asnani
Proc. of **IEEE Infocom**, 2010

[C48] *Rate Adaptation Games in Wireless LANs: Nash Equilibrium and Price of Anarchy*
P. Chaporkar, **A. Proutiere** and B. Radunovic
Proc. of **IEEE Infocom**, 2010

[C49] *Resource Allocation over Network Dynamics without Timescale Separation*
A. Proutiere, M. Chiang, T. Lan, and Y. Yi
Proc. of **IEEE Infocom** mini-symposium, 2010

[C50] *Decentralized Opportunistic Medium Access in Multi-channel Wireless systems: A Learning Approach*
G. Kasbekar, **A. Proutiere**
Proc. of **Allerton conference** on Communication, Control and Computing, 2010

[C51] *Rethinking Indoor Wireless Mesh Design: Low Power, Low Frequency, Full-duplex*
B. Radunovic, D. Gunawardena, **A. Proutiere**, P. Key, N. Singh, V. Balan, and G. Dejean
Proc. of **WiMesh** (SECON Workshop), IEEE Communications Society, 2010

[C52] *Insensitivity and Stability of Random-Access Networks*
P. van de Ven, S. Borst, J. van Leeuwaarden, **A. Proutiere**
Proc. of **Performance** (IFIP WG 7.3 International Symposium on Computer Performance, Modeling, Measurements and Evaluation), 2010

[C53] *Random Capture Algorithms: Fluid limits and Stability*
M. Feuillet, **A. Proutiere**, and P. Robert
Proc. of **Information Theory and Applications workshop**, 2010
Number of citations: 15

[C54] *Implementing utility-optimal CSMA*
C. Lee, Y. Yi, **A. Proutiere**, M. Chiang
Proc of. **Allerton conference on Communication, Control and Computing**, 2009

[C55] *Exploitation vs. Exploration Trade-off in Distributed Random Opportunistic Spectrum Access*
A. Proutiere
Proc. of the 15th **Informs Applied Probability Conference**, 2009

[C56] *A Particle System in Interaction with a Rapidly Varying Environment: Mean Field Limits and Applications*
C. Bordenave, D. Mc Donald, A. Proutiere
Proc. of the 15th **Informs Applied Probability Conference**, 2009

[C57] *Convergence and trade-off in utility optimal CSMA*
J. Liu, **A. Proutiere**, Y. Yi, M. Chiang, V. Poor
Proc. of **IEEE BROADNETS**, 2009

[C58] *Mobility-driven scheduling in wireless data networks*
S. Borst, N. Hegde, **A. Proutiere**
Proc. of **IEEE Infocom**, 2009

[C59] *Is the law of the jungle sustainable for the Internet?*
T. Bonald, M. Feuillet, **A. Proutiere**
Proc. of **IEEE Infocom**, 2009

[C59] *Joint-optimal Probing and Scheduling in Wireless Systems*
P. Chaporkar, **A. Proutiere**
Proc. of **IEEE WiOpt**, 2008

[C60] *Rate regions of Multi-channel Mesh Data Networks*
N. Hegde, **A. Proutiere**
Proc. of **IEEE RAWNET**, 2008

[C61] *Throughput of Random Access without Message Passing*
Y. Yi, **A. Proutiere** and M. Chiang
Proc. of 44dn Conf. on Information Science and Systems (**CISS**), 2008

[C62] *Data networks in random environment: A flow-level analysis*
J. Liu, **A. Proutiere,** Y. Yi, M. Chiang
Proc. of the 14th **Informs Applied Probability Conference**, 2007

[C63] *Mean field limits of a particle system in varying environment, application to modelling random multi-access algorithms*
C. Bordenave, D. Mc Donald, **A. Proutiere**
Proc. of the 14th **Informs Applied Probability Conference**, 2007

[C64] *Random multi-access algorithms in networks with partial interaction: A mean field analysis*
C. Bordenave, D. McDonald, **A. Proutiere**
Proc. of the 20th International Teletraffic Congress (**ITC**), 2007

[C65] *On Downlink Capacity of Cellular Data Networks with WLAN/WPAN Relays*
B. Radunovic, **A. Proutiere**
Proc. of **IEEE RAWNET**, 2007

[C66] *Packet and flow level performance of multihop wireless networks*
N. Hegde, **A. Proutiere**
Proc. of **IEEE Globecom**, 2006

[C67] *Flow-level stability of utility-based allocations for non-convex rate regions*
T. Bonald, **A. Proutiere**
Proc. of the 42dn Conf. on Information Science and Systems (**CISS**), 2006

[C68] *Random multi-access algorithms: A mean field analysis*
C. Bordenave, D. McDonald, **A. Proutiere**
Proc. of **Allerton conference on Communication, Control and Computing**, 2005

[C69] *Conservative estimates of blocking and outage probabilities in CDMA networks*
T. Bonald, **A. Proutiere**
Proc. of **Performance**, 2005

[C70] *Evaluating the voice capacity of 802.11 WLAN under distributed control*
N. Hegde, , **A. Proutiere** and J. Roberts
Proc. of **IEEE LAN/MAN**, 2005

[C71] *On the traffic capacity of Gaussian broadcast channels*
T. Bonald, **A. Proutiere**
Proc. of the 19th international Teletraffic Congress (**ITC**), 2005

[C72] *User-level performance of WLAN hotspots*
F. Lebeugle, **A. Proutiere**
Proc. of the 19th International Teletraffic Congress (**ITC**), 2005

[C73] *Inter-cell Scheduling in Wireless Data Networks*
T. Bonald, S. Borst, **A. Proutiere**
Proc. of **European Wireless**, 2005

[C74] *Computational aspects of balanced fairness*
T. Bonald, **A. Proutiere,** J. Roberts, and J. Virtamo
Proc. of the 18th International Teletraffic Congress (**ITC**), 2003

[C75] *Insensitivity in processor-sharing networks*
T. Bonald, **A. Proutiere**   Proc. of
IFIP Performance, 2002

[C76] *Insensitive bandwidth sharing*
T. Bonald, **A. Proutiere**
Proc. of **IEEE Globecom**, 2002

[C77] *Modelling integration of streaming and data traffic*
F. Delcoigne, **A. Proutiere** and G. Regnie
Proc. of **ITC specialist seminar on IP traffic**, 2002

[C78] *Insensitivity results in statistical bandwidth sharing*
T. Bonald, **A. Proutiere,** G. Regnie, and J. Roberts
Proc. of the 17th International Teletraffic Congress (**ITC**), 2001