

Alain JEAN-MARIE _____ Curriculum Vitæ, September 2017

Personal

Born: 24 October 1963, in Boulogne Billancourt (France),

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Current Position

- Senior researcher (Directeur de Recherche) at INRIA (National Institute of Research in Informatics and Automatics), France. Member and head of the NEO group.

Anterior Situations

- Full Professor of Computer Science, University of Montpellier 2 (10/98–09/03).
- Researcher in the MISTRAL group of INRIA-Sophia Antipolis (07/87–08/88 and 01/90–09/98); Senior researcher since 1996.
- Consultant in Modeling and Simulation of computer networks at the IBM Systems Integration Division, Gaithersburg, Maryland (09/88–08/89).
- Research Associate at the Systems Research Center, University of Maryland in College Park (09/88–12/89). Host: A.M. Makowski.

Education and Diplomas

1985–87 PhD Thesis in Computer Science from Paris XI University at Orsay. Thesis advisor: F. Baccelli (INRIA).

1980–85 M.S. degree in Mathematics and Computer Science (DEA), Paris XI University, Orsay.

Research Interests: main themes and sample topics

- Analysis of Stochastic Discrete Event Systems, Queuing Theory, Applied Probabilities

- Dynamical systems and optimization: Optimal Control and Game Theory
- Network Engineering, protocol design, measurements, simulation
- Applications to:
 - Performance and Optimization of Networks and Computer Systems (active queue management methods for the Internet, service differentiation, contents distribution networks, forward error correction codes, parallel and distributed systems...)
 - Design and optimization of network applications, contents delivery networks, distributed storage, power-line communication networks
 - Real-Time Scheduling, worst-case analysis of scheduling schemes, Network calculus, optimal online scheduling
 - Probabilistic Analysis of Algorithms and Data Structures in Computer Science and BioInformatics (*e.g.* election algorithms, packing algorithms, phylogenetic trees, probabilistic counting algorithms)
 - Economics (equilibria with conjectures, dynamic games, learning processes)
 - Economic Modeling, Natural Resource Management

Principal Recent Editorial and Administrative Activities

- Former editor, *RAIRO Operations Research*. Former editor, *Performance Evaluation*.
- Co-General Chair: SIGMETRICS/PERFORMANCE 2016. Program Committee: SIGMETRICS 2009, 2010, 2012 & 2013, INFOCOM 2007, ISCIS 2006, 2010–2013, 2015–2016, AINTEC 2006, EPEW 2006 & 2016, QEST 2006, 2008 & 2010, MAMA 2006–2017, VALUETOOLS 2012 (co-PC chair), ASIAN 2002 (PC chair)
- Co-head, Department of Informatics of the LIRMM Laboratory (80 staff, 80 PhD students, 2005-2007)
- Head of Inria’s MAESTRO team (2014–2016) and head of Inria’s NEO team (2017–).
- Member of recruiting committees: University of Avignon (2009), École Normale Supérieure (2010), Telecom ParisTech (2011, 2012), Inria junior researcher (CR2, Sophia Antipolis research center, president of the committee, 2013), University Paris-Est Créteil (2015).

Books and chapter of books

C. Figuières, A. Jean-Marie, N. Querou and M. Tidball, *Theory of Conjectural Variations*, World Scientific Publishing, 2004.

N. Galtier, O. Gascuel and A. Jean-Marie, “Introduction to Markov Models in Molecular Evolution”, *in: Statistical Methods in Molecular Evolution*, R. Nielsen (Ed.), Chapter 1, pp. 3–24, Springer Verlag, 2005.

A. Jean-Marie and M. Tidball, “Consistent conjectures, equilibria and dynamic games”, *in: Dynamic Games: Theory and Applications, Mathematics of Decision Making*, A. Haurie and G. Zaccour, Chapter 5, pp. 93–109, Springer Verlag, 2005.

Journals (since 2012)

Y. Refahi, G. Brunoud, É. Farcot, A. Jean-Marie, M. Pulkkinen, T. Vernoux and C. Godin, “A stochastic multicellular model identifies biological watermarks from disorders in self-organized patterns of phyllotaxis”, *eLife*, online July 2016.

DOI:10.7554/eLife.14093

I. Tinnirello, G. Neglia, L. Giarré, G. Di Bella, A. Jean-Marie and M. Ippolito, “Large Scale Control of Deferrable Domestic Loads in Smart Grids”, *IEEE Transactions on Smart Grid*, May 2016.

DOI:10.1109/TSG.2016.2563039

J.-C. Bermond, A. Jean-Marie, D. Mazaauric and J. Yu, “Well balanced designs for data placement”, *Journal of Combinatorial Designs*, pp. 55-76, February 2016.

DOI:10.1002/jcd.21506

F. Fomin, F. Giroire, A. Jean-Marie, D. Mazaauric and N. Nisse, “To satisfy impatient web surfers is hard”, *Theoretical Computer Science*, online January 2014.

DOI:10.1016/j.tcs.2014.01.009

F. Prieur, A. Jean-Marie and M. Tidball, “Growth and Irreversible Pollution: Are Emission Permits a Means of Avoiding Environmental and Poverty Traps?”, *Macroeconomic Dynamics*, Volume 17 (2), pp. 261-293, March 2013.

DOI:10.1017/S1365100511000113

K. Erdlenbruch, A. Jean-Marie, M. Moreaux and M. Tidball, “Optimality of Impulse Harvesting Policies”, *Economic Theory*, Volume 52 (2), pp. 429-459, March 2013.

DOI:10.1007/s00199-011-0650-6

E. Della Vecchia, S. Di Marco and A. Jean-Marie, “Illustrated review of convergence conditions of the value iteration algorithm and the rolling horizon procedure for average-cost MDPs”, *Annals of Operations Research*, Volume 199 (1), pp. 193–214, October 2012.
DOI:10.1007/s10479-012-1070-0

A. Ben Tahar and A. Jean-Marie, “The Fluid Limit of the Multiclass Processor Sharing Queue”, *QUESTA*, 71 (4), pp. 347–404, July 2012.
DOI: 10.1007/s11134-012-9287-9

E. Hyon and A. Jean-Marie, “Scheduling Services in a Queuing System with Impatience and Setup Costs”, *The Computer Journal*, Vol. 55, Issue 5, pp. 553–563, May 2012.
DOI: 10.1093/comjnl/bxq096

E. Della Vecchia, S. Di Marco and A. Jean-Marie, “Illustrated review of convergence conditions of the value iteration algorithm and the rolling horizon procedure for average-cost MDPs”, *Annals of Operations Research*, Vol. 199, N. 1, pp. 193–214, 2012.
DOI: 10.1007/s10479-012-1070-0

Conferences with refereeing process (since 2012)

I. Dimitriou, S. Alouf and A. Jean-Marie, “A Markovian Queueing System for Modeling a Smart Green Base Station”, *12th European Performance Evaluation Workshop, EPEW 2015*, pp. 3-18, Aug. 2015.
DOI:10.1007/978-3-319-23267-6_1

O. Morad and A. Jean-Marie, “On-Demand Prefetching Heuristic Policies: A Performance Evaluation”, *29th International Symposium on Computer and Information Sciences (ISCIS 2014)*, Krakow, Poland, October 2014.
DOI:10.1007/978-3-319-09465-6_33

“Prefetching Control for On-Demand Contents Distribution: A Markov Decision Process Model”, *IEEE 22nd International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2014)*, September 2014.
DOI:10.1109/MASCOTS.2014.58

Laurent Chusseau, Fabrice Philippe and Alain Jean-Marie, “Monte Carlo markovian modeling of modal competition in dual-wavelength semiconductor lasers”, *SPIE Photonics West*, San Francisco, February 2014.

F. Fomin, F. Giroire, A. Jean-Marie, D. Mazauric and N. Nisse, “To satisfy impatient web surfers is hard”, *Sixth International conference on Fun with Algorithms (FUN 2012)*, Lecture Notes in Computer Science, Vol. 7288/2012, pp. 166–176, June 2012.
DOI: 10.1007/978-3-642-30347-0_18