Daniela Pucci de Farias

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Education

Sep/98–Jun/02	Ph.D., Management Science and Engineering, Stanford University. Thesis: "The Linear Programming Approach to Approximate Dynamic Programming: Theory and Applications."
Jul/97–Aug/98	M.Sc., Electrical Engineering, State University of Campinas, Brazil. Thesis: "Optimization and Control of Markov Jump Linear Systems."
Mar/93–Jun/97	B.Sc., Computer Engineering, State University of Campinas, Brazil.

Professional Experience

Jul/03–	Assistant Professor of Mechanical Engineering, MIT.
Sep/02–Jun/03	Postdoctoral Research Scientist, IBM Almaden Research Center. Theory of Computation Group, Department of Computer Science.
Jul/01–Sep/01	Pre-Professional Engineer, T.J. Watson Research Center, IBM. Numerical Optimization Group, Department of Mathematical Sciences.
Jul/00–Sep/00	Pre-Professional Engineer, T.J. Watson Research Center, IBM. Optimization under Uncertainty Group, Department of Mathematical Sciences.
Jun/99–Sep/99	Summer Intern, AXA Rosenberg Investment Management.

Articles

1. D. Modha and D.P. de Farias, "Finite-State Rate Distortion for Individual Sequences," submitted to ISIT 2004.

2. D.P. de Farias and N. Megiddo, "How to Combine Expert (and Novice) Advice when Actions Impact the Environment," working paper.

   Presented in Neural Information Processing Systems, Vancouver, Canada, 2003 (oral presentation — 26 out of 717 papers accepted).

3. D.P. de Farias and B. Van Roy, "A Two-Phase Linear Programming Algorithm for Average-Cost Approximate Dynamic Programming," presented in Neural Informa-

tion Processing Systems, Vancouver, Canada, 2002 (spotlight presentation — 73 out of 694 papers accepted).

4. D. P. de Farias and B. Van Roy, "On Constraint Sampling for the Linear Programming Approach to Approximate Dynamic Programming," to appear in *Mathematics of Operations Research*, 2001.

   Presented in IEEE Conference on Decisions and Control, Maui, 2003.

5. D. P. de Farias and B. Van Roy, "The Linear Programming Approach to Approximate Dynamic Programming," *Operations Research*, Vol. 51, No. 6, 2003.

   Presented in Neural Information Processing Systems, Vancouver, Canada, 2001 (oral presentation — 25 out of 650 papers accepted).

6. D. P. de Farias and B. Van Roy, " On the Existence of Fixed Points for Approximate Value Iteration and Temporal-Difference Learning," *Journal of Optimization Theory and Applications*, Vol. 105, No. 3, June 2000.

   Versions of the paper presented in the *International Conference on Machine Learning*, Stanford, U.S., July 2000, and the *IEEE Conference on Decisions and Control*, Sydney, Australia, December 2000.

7. D. P. de Farias, J. C. Geromel, J. B. R. do Val and O. L. V. Costa, "Output Feedback Control of Markov Jump Linear Systems in Continuous Time," *IEEE Transactions on Automatic Control*, Vol. 45, No. 5, May 2000.

8. D.P. de Farias, M. C. de Oliveira and J. C. Geromel, "Mixed H_2/H_∞ control of flexible structures ," *Mathematical Problems in Engineering*, Vol. 6, No. 6, pp.557–598, 2001.

   Presented in the *IFAC World Conference*, Beijing, China, July 1999.

9. D.P. de Farias, J.C. Geromel and J.B.R. do Val, "A Note on the Robust Control of Markov Jump Linear Uncertain Systems," *Optimal Control Applications & Methods*, Vol.23, No.2, pp. 105–112, 2002.

10. D.P. de Farias and J. C. Geromel, "An Optimization Algorithm for the Mixed H_2/H_∞ Control Problem"(in Portuguese), *XII Brazilian Conference on Automation*, Uberlândia, Brazil, September 1998.

Professional Service

Reviewer: IEEE Transactions on Automatic Control, IEEE Transactions on Neural Networks, Journal of Artificial Intelligence Research, Journal of Machine Learning Research, Journal of Mathematical Analysis and Applications, Mathematics of Operations Research, Neural Computation, Operations Research, SIAM Journal of Optimization, IEEE Conference on Decisions and Control, International Conference on Machine Learning, Neural Information Processing Systems (conference).

Session Chair: Approximate Dynamic Programming I, II, III and IV, INFORMS National Meeting, San Jose, 2002. **Program Committee Member:** International Conference on Machine Learning, 2004. **Workshop Organizer:** The AAAI-04 Workshop on Learning and Planning in Markov Processes - Advances and Challenges, 2004.

Invited Talks: Department of Computer Science, Stanford University, March 2001; Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor, September 2002; Operations Research Center, Massachusetts Institute of Technology, April 2002; International Conference on Game Theory, July 2002 (plenary speaker), Economics Research Center, University of Chicago, December 2003.

Awards and Honors

Nov/02	INFORMS George B. Dantzig Dissertation Award.
Jun/02	Outstanding Graduate Performance Award from the Department of Management Science and Engineering, Stanford University.
Sep/00–Jun/02	IBM Research Fellowship.
Jun/00–Aug/00	Stoloroff Fellowship (awarded by the Department of Engineering-Economic Systems and Operations Research at Stanford University).
Apr/00–Jun/00	Wells Fargo Bank Fellowship (awarded by the Department of Engineering-Economic Systems and Operations Research at Stanford University).
Sep/98–Jun/99	Stanford School of Engineering Fellowship.
Aug/97	State of São Paulo Institute of Engineering Award for ranking 1st among 88 graduates in Computer Engineering.
Oct/92	Runner-up, Mathematics Olympiads of the State of São Paulo, Brazil.

Other skills

Languages: Portuguese (native speaker), German (intermediate) and French (intermediate).
Plays the piano since 1985. Dances Argentine tango since 1999.