

ESCOFFIER Bruno

Born in 1979 in Montélimar, France. French citizenship, 2 children (born in 2011 and 2013).

Professor, Section 27 (Computer Science), UPMC.

Address : LIP6, Equipe RO
UPMC
4 place Jussieu
75005 Paris
France

e-mail address : bruno.escoffier@upmc.fr

Web page : <http://www-desir.lip6.fr/~escoffier/>

Background

- **Education :**

- 2012 : **Habilitation degree (HDR)**, Université Paris Dauphine, supervised by Vangelis Th. Paschos, defended on November 23rd 2012. Manuscript entitled: “Models and algorithms in combinatorial optimization: some recent developments”.
- 2005 : **Ph. Doctorate in computer science**, thesis entitled « Polynomial Approximation of Optimization Problems: a structural and operational study », defended on November 4th 2005. Advisor: Vangelis Th. Paschos.
- 2002 : **Master** in computer science and Operations Research from Université P. et M. Curie.
- 2001 : **Engineer diploma** from the Ecole Nationale Supérieure des Mines de Paris.
- 1996-1998 : « Classes préparatoires » MPSI-MP*, lycée Champollion, Grenoble.

- **Career :**

- From 2013 : **Professor** in Computer Science at UPMC.
- 2006-2013 : **Assistant/associate Professor** (Maître de Conférences, habilité en 2012) in computer science at the Université Paris Dauphine.
- 2005-2006 : **Teaching Assistant (ATER)** in computer science at the Université Paris Dauphine.
- 2002-2005 : **Ph.D. student and teaching assistant (allocataire – moniteur)** in computer science at the Université Paris Dauphine.

Research activities

- **Research area :** design and analysis of algorithms for combinatorial optimization. More precisely :
 - Computational complexity.
 - Exact, parameterized and approximate algorithms for hard optimization problems.
 - Algorithmic game theory and computational social choice.
 - Algorithms in dynamic environments (reoptimization in particular).
- **Honors :**
CNRS bronze medal 2011.

• **Projects :**

- Project **COCORICO** (Computation, Communication, Rationality and Incentives in Collective and Cooperative Decision Making), funded by the ANR, 2014-2018.
Partners: Lamsade (Université Paris Dauphine), LIP6 (UPMC), CREM (Université de Caen)
- Project **TODD** (Time versus Optimality in Discrete Optimization) founded by the ANR (National Research Agency) 2009 – 2013. Responsible of the project axis “Exact computation with provably time complexity upper bounds”.
Partners: Lamsade (Université Paris Dauphine), Ibisc (Université d’Evry), ESSEC Business School, Limos (Université Blaise Pascal, Clermont-Ferrand).
- Project **COMSOC** (Computational Social Choice) founded by the ANR, 2009-2012.
Main partners: Lamsade (Université Paris Dauphine), Cril (Université d’Artois), CREM (Ecole Polytechnique), PREG (Université de Caen).
- Project **COCA** (Combinatorial Optimization with Competing Agents) founded by the ANR, 2009-2013.
Partners : Lamsade (Université Paris Dauphine), LIP6 (Université Paris VI).
- Project **Reoptimization** (co-leader), funded by the GDR-RO, 2014
- Project **CREPE** (Complexity and exact or approximate resolution of fair division problems) founded by the GDR-RO, 2009.

• **Membre of :**

- From 2014: Council of the Department of Licence of Computer Science at UPMC.
- From 2014 : Council of teaching programs (« conseil des enseignements) at the faculty of engineering at UPMC
- From 2013 : Council of the Department of Master of Computer Science at UPMC.
- 2009-2013: Council of the Lamsade laboratory, Université Paris-Dauphine.
- 2009-2013: Advisory Commission of computer science at the Université Paris Dauphine.
- Program committee of :
 - . CIAC 2015, International Conference on Algorithms and Complexity, 20-22 May 2015, Paris.
 - . WAOA 2013, International Workshop on Approximation and On-line Algorithms, 5-6 September 2013, Nice
 - . APEX 2013, International Workshop on Approximation, Parameterized and Exact Algorithms, 7 July 2013, Riga.
 - . ISCO 2012, International Symposium on Combinatorial Optimization, 17-21 April 2012, Athens, Greece.
 - . Spring school « Théorie des jeux algorithmique », 18-20 June 2012, Paris.
 - . APEX 2012, 28-29 February 2012, Paris.
- Organizing committee of
 - . APEX 2013, 7 July 2013, Riga.

- . Spring school « Théorie des jeux algorithmique », 18-20 June 2012, Paris.
- . Workshop « Games, algorithms and optimization », 24 juin 2011, Paris.
- . CSDT, international workshop “Computer science and Decision Theory”, Université Paris Dauphine, Paris, 27-29 Octobre 2004.
- . JFRO (meetings on Operations Research), 2006-2009. <http://www-desir.lip6.fr/~fouilhoux/JFRO/>

• **Collaborations :**

- Invited researcher at the *DIS (Dipartimento d’Informatica e Sistemistica)* by Giorgio Ausiello (2 weeks), *Università La Sapienza*, Rome, Italy, 2007.
- Invited researcher at the *DIS (Dipartimento d’Informatica e Sistemistica)* by Giorgio Ausiello (3 months), *Università La Sapienza*, Rome, Italy, 2005.
- Invited researcher at the *Rutcor (Rutgers Center for Operations Research)* by Peter L. Hammer (one week), *Rutgers University*, United-States, 2005.
- Invited researcher at the *DIMACS (Center for Discrete Mathematics and Theoretical Computer)* by Fred Roberts (2 months), *Rutgers University*, United-States, 2005.
- **Coauthors:** P. L. Hammer, M. Kaminski (Rutgers University, United States), F. Della Croce (Politecnico di Torino, Italy), D. de Werra (EPFL, Lausanne, Switzerland), G. Ausiello, V. Bonifaci, C. Demetrescu, A. Ribichini, (Università La Sapienza, Rome, Italy), J.M.M Van Rooij (Utrecht University, Netherlands), M. Milanic (Universitaet Bielefeld, Germany), G. Lucarelli (Athens University, Greece), G. Moruz (University of Aarhus, Denmark), M. Xiao (University of Electronic Science and Technology of China, China), M. Demange (ESSEC, France), F. Pascual, O. Spanjaard (Université P. et M. Curie, France), C. Bazgan, E. Bonnet, N. Bourgeois, L. Gourvès, E. Kim, J. Lang, J. Monnot, S. Moretti, C. Murat, K.T. Nguyen, M. Oztürk, V. Paschos, E. Tourniaire (Université Paris-Dauphine, France).

• **Referee**

- For the French ANR (National Research Agency).
- For the Israël Science Foundation.
- For journals: ACM Transactions on Algorithms, Algorithmica, Theoretical Computer Science, SIAM Journal on Discrete Mathematics, Annals of Operations Research,...
- For conferences: SODA, ICALP, ISAAC, ESA, STACS, IJCAI,...

Supervisions

- Co-advisor (with Vangelis Th. Paschos) of the **Ph.D. thesis of Edouard Bonnet**, entitled “Algorithmique faiblement exponentielle et paramétrée”, defended on December 2014.
- Co-advisor (with Vangelis Th. Paschos) of the **Ph.D. thesis of Emeric Tourniaire**, entitled “Approximation super-polynomiale”, defended on July 2013.
- Co-advisor (with Vangelis Th. Paschos) of the **Ph.D. thesis of Nicolas Bourgeois** entitled « Résolution exacte et approchée de problèmes NP-difficiles par des algorithmes exponentiels », defended on July 2nd 2010.

Teaching

- **Director of the Master of Computer Science at UPMC.** This master includes 9 « spécialités » (teaching programs) both in M1 and M2, 3 international masters, 3 programs « en apprentissage », between 800 and 850 students, and an administrative staff of 9 persons.
- **Responsible of the third year (L3) diploma of computer science** of the Université Paris Dauphine (from 2009)
- **Teaching:** mainly in algorithms and programming, operations research, databases.
- **Responsible of courses :** (past or present) « Combinatorial optimization and metaheuristics » in M2, « exponential algorithms for solving NP-hard problems » in M2, « Graphs : model and algorithms » in L3, « Combinatorics and graph algorithms » in L3, « Tools in computer science » in L1, « Computer Science » in L1 (with around 750 students).

Publications

Books	1	International journals	31
Book chapters	7	International conferences	28

Most frequent journal publications: Theoretical Computer Science (7), Algorithmica (3), Discrete Applied Mathematics (3)