

Address 43 rue du souvenir, 69009 Lyon, France
Date of birth March 16, 1967
Citizenship Portuguese
Foreign languages (fluent) English, Spanish, Portuguese

Situation

Position Inria Research Associate (CR1), Inria team project DANTE
Location Centre Inria Rhône-Alpes – École Normale Supérieure de Lyon
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Education and Business

Certificates

2010	ED Math-Info Fond., ENS Lyon	HDR : <i>Analyse temps-fréquence et modèles d'invariance d'échelle: Contribution à l'étude de systèmes complexes</i>
Ph. D		Ph.D (P. Flandrin, Dir.) : <i>Time-Scale Analysis</i>
1993	INPG (ENS Lyon)	MS of Digital Signal Processing
1990	INPG	Electrical and Computer Engineering degree
1990	ICPI Lyon	DUT of Electrical engineering
1987	IUT Lyon 1	

Professional activities

Since 1996	Instit. Nat. de Rech. en Informatique et Automatique	Research associate
2012	CRI Rhône-Alpes, team DANTE	
2005-2012	CRI Rhône-Alpes, team RESO	Leader 2010-2012
2003-2005	Inst. Sup. Tech. de Lisbon. Portugal	Invited researcher
1999-2003	CRI Rhône-Alpes, team IS2	
1996-1999	CRI Rocquencourt, team FRACTALES	
1994-1996	Rice University, DSP Lab. Houston (TX) USA	Post-doctoral fellow
1990-1993	Ecole Normale Supérieure de Lyon. France	Ph. D student

Teaching experience

since 2009	ENS Lyon - Master 2R Math-Info	Responsible for the theme <i>Models and Optimization for Emerging Infrastructures</i>
2011-2013	CPE Lyon (Grad. course)	Introduction to <i>Compressive sensing</i> (8 hrs)
2008-2011	ENS Lyon - Master 2R Math-Info	Course on <i>Models and Optimization for Emerging Infrastructures</i> (24 hrs)
2007	ENS Lyon - Master <i>Math-Info</i>	Course on <i>Protocols and stochastic processes</i> (12 hrs)
2001-2003	INPG-ENSERG	Lecturer on <i>Non-stationarity and Multiresolution Analysis</i> (20 hrs)
1997-2001	U. Nacional Autonoma de Mexico (Grad. course)	Lecturer on <i>Wavelets and Fractals</i> (40 hrs)
1998-1999	ENSEA, DEA TIS (MS)	Course on <i>Wavelets and Fractals</i> (12 hrs)
1997-1998	Ecole Centrale de Paris (Grad. course)	Course on <i>Wavelets and Fractals</i> (12 hrs)
1993-1995	ENS Lyon. France (MS), ATER	Electronics (64 hrs)
1990-1994	CPE Lyon (Grad. course), Assistant professor	Signal Processing (130 hrs)
1991-1994	IUT Elec. & Comp. Eng., Assistant professor	Mathematics (24 hrs)
1990-1991	Ecoles Préparatoires Chartreux Lyon, Examiner	Physics, Electronics, Optics (24 hrs)
(Total ~ 1000 hrs)		

Research teams

- Computer Science* Dynamic resource management in cloud environments [S. Roy, Ph. D 2013]
 Content- and user-based classification in peer-to-peer networks [M. Sokol, Ph. D 2013]
 Virtual infrastructures and networking [F. Anhalt, Ph. D 2011, G. Koslovski, Ph. D 2011]
 Scale invariance properties in network traffic [P. Loiseau, Ph. D 2010]
- Signal Processing* Graph oriented signal processing [B. Girault, Ph. D 2015]
 Machine learning applied to remote sensing [H. Carrão, Ph. D 2009]
 Mutifractal analysis. Application to heart beat rate variability
 Time-frequency and time-scale analysis [J. Gosme, Ph. D 2004]. Wavelets.
 Empirical Mode Decomposition.
 Compressive sensing. Application to traffic matrix estimation.

Ph. D supervision

- Direction* **S. Roy**, *Large deviations methods for dynamic resource management in clouds*, (with T. Begin). ENS Lyon, 2010-2013.
G. Koslovski, *Dynamically provisioned virtual computing and communication infrastructures : specification, allocation and execution process*, (with P. Vicat-Blanc). ENS Lyon, 2008-2011.
F. Anhalt, *Virtualisation des équipements réseau : Partage des ressources, performance et applications*, (with P. Vicat-Blanc). ENS Lyon, 2008-2011.
P. Loiseau, *Contributions to the Analysis of Scaling Laws and Quality of Service in Networks: Experimental and Theoretical Aspects*, (with P. Vicat-Blanc). ENS Lyon, 2006-2009.
- Co-direction* **B. Girault**, *Diffusion processes on dynamic graphs*, (E. Fleury Dir.). ENS Lyon, 2012-2015.
M. Sokol, *Clustering and Learning Techniques for Traffic / User Classification*, (Ph. Nain, Dir.). U. of Nice, 2009-2013.
H. Carrão, *Land Cover Classification using multi-temporal MODIS and MERIS satellite images*, (M. Caetano Dir.). U. of Lisbonne (Portugal), 2005-2009.
J. Gosme, *Adaptive diffusion schemes for time-frequency and time-scale representations*, (C. Richard Dir.). UTT, 2001-2004.

Scientific animation

- 2015 GRETSI 2015: Organisation chair of the 25th french symposium of Signal Processing. Lyon 2015.
 since 2012 Inria International Direction correspondent for CRI Rhône-Alpes.
 2010-2012 Leader of the Inria team-project RESO.
 since 2010 Officer of the local liaison board EURASIP.
 2010 Evaluation committee member for AERES (LTSI, U. Rennes 1).
 2008-2010 Evaluation committee member for ANR (programs *Technologies logicielles* and *SIMI3*).
 2009 Co-editor of *Scaling, Fractals and Wavelets*. ISTE – J. Wiley & Sons, Inc. (English edition of *Lois d'échelle, fractales et Ondelette*, collection IC2, Hermès Sc. Pub. 2002.)
 2007 Local chair of GridNets 2007, october 2007, Lyon.
 2004 Director of the Wavelet And Multiresolution Analysis summer school (WAMA). Cargèse 2004.
 2002-2004 Associate Editor of *IEEE Signal Processing Letters*.
 2001-2004 Scientific board member of the "Specialists committee" at U. Joseph Fourier, UFR IMA (Section 26).
 1998-1999 Scientific board member of the "Specialists committee" at U. Paris XI (Section 61).
 1997-2002 Responsible for the Work Group : *Analysis and decision in signal*, and for the Research Group *Fractals and wavelets for signal and image processing* of the GdR CNRS ISIS.

Awards and publications

- 2009 Best demonstration awards at SIGMETRICS for our work on *Automated Traffic measurements and analysis in GRID'5000*. P. Loiseau, R. Guillier, M. Imbert and P. Gonçalves.
 2012 Best paper award at Int. Wireless Comm. and Mobile Computing Conf. (3rd International Workshop on Traffic Analysis and Classification) for our work on *Classification of Content and Users in BitTorrent by Semi-supervised Learning Methods*. K. Avrachenkov, P. Gonçalves, A. Legout and M. Sokol.
 Link to a complete list of publications : <http://perso.ens-lyon.fr/paulo.goncalves/BIB/>