#### Atlanstic Formation 2 • 0 • 2 • 0 Recherche, Formation & Innovation en PAYS de la LOIRE

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## Mon 7 - Thu 10 Oct 2019



# www.atlanstic2020.fr



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Atlanstic 2020 is a regional program federating 4 laboratories in 3 locations:

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LARIS & LERIA	LS2N	LIUM
Computer Engineering & Computer Science Laboratories	Laboratory of Digital Sciences	Computer Science Laboratory
ANGERS	NANTES	LE MANS

Atlanstic 2020 aims at strengthening research teams and developing their international visibility. This program is funded by the Pays de Loire council; the Universities of Nantes, Angers and Le Mans; the Centrale Nantes and IMT Atlantique engineering schools; CNRS and Inria.

## Atlanstic 2020 fields of expertise are

- Data Science,
- Software Science,
- Robotics,

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- Contents and Interactions,
- Complex Systems.

As part of our partnership with IVADO, our goal is to launch scientific collaborations with IVADO laboratories. These collaborations may lead, among others, to postdoctoral funding, sabbatical packages for visiting professors, PhD thesis co-advising and master students exchanges.

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## **Our delegation**

## Sébastien Bourguignon, LS2N Nantes



#### Assistant Professor, Ecole Centrale de Nantes

*Signal and image deconvolution and reconstruction, Inverse problems, Optimization, Sparsity-promoting algorithms.* 

My research activity focuses on the development of signal and image processing methods, especially in the field of inverse problems, sparse approximation and optimization algorithms in various application fields. Recently, I have been particularly interested in hyperspectral image processing, acoustic imaging, microwave imaging and structured illumination microscopy. My favourite application domains range from astronomy and planetary science to biological imaging and nondestructive testing of materials.

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## Pierre Cointe, LS2N Nantes



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#### Professor, Institut Mines Télécom Atlantique Scientific director of Atlanstic 2020

Programming Languages, Software Engineering, Reflection, OOP, AOP

My first scientific contributions were on the implementations of functional (LISP) and object-oriented programming languages (PLASMA and SMALLTALK). Then I moved to computer music to design the FORMES language, one of the first concurrent object-oriented language applied to music composition, sound synthesis and analysis. I applied the object-oriented techniques to the field of reflective languages and metalevel architectures (ObjVlisp). More recently I contributed to the fields of Design Patterns, Aspect Oriented Programming and Domain Specific Languages. Phone: +33 (0)2 51 12 58 06 - Pierre.Cointe@imt-atlantique.fr http://www.emn.fr/x-info/cointe/

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## Jean-Baptiste Fasquel, LARIS Angers



#### Professor, Université d'Angers

Image processing, Machine learning, Graph matching, Medical imaging, MloT

I am interested in image understanding using a priori structural and qualitative knowledge, managed using graph-based approaches. My main application domains regard medical image analysis and IoT for health care. From 2011 to 2019, I have been pedagogical coordinator of the last year of Polytech Angers (Industrial Systems Engineering School), automation and computer engineering option. I am mainly teaching software engineering and programming, image processing, linux for both undergraduate and graduate students.

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## Guillaume Fertin, LS2N Nantes



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#### Professor, Université de Nantes

Algorithms, Computational complexity, Bioinformatics, Graphs, Sequences

My topic of research is the algorithmic study of biologically motivated problems. The problems I have been interested in lately concern mass spectrometry, biological networks modeling and analysis, and comparative genomics. I teach algorithmics and bioinformatics at Université de Nantes (under and postgraduate). I am currently a member of the CNRS Interdisciplinary Committee (CID51 « Modeling and analysis of biological data and systems: approaches through computer science, mathematics, and physics »), in charge of recruiting, evaluating and promoting CNRS researchers.

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## Claude Jard, LS2N Nantes



#### Professor, Université de Nantes Head of LS2N Deputy director of labex CominLab

Protocol engineering, Distributed systems, Software engineering and theoritical computer science, Telecommunication

My research focuses on the analysis of asynchronous parallel systems. The central theme of my work is the study of dynamic methods of analysis, in which the calculation is carried out during the execution – abstract, simulated or real – of the program to be analysed. Phone: +33 (0) 2 51 12 58 56 – Claude.Jard@ls2n.fr

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## Anthony Larcher, LIUM Le Mans



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#### Assistant Professor HDR, Le Mans Université Head of Computer Sciences Institute of Le Mans University (Institut Claude Chappe)

Speaker recognition, Speaker diarization, Lifelong learning, Evolutive learning, Evaluation

My research interests include speaker verification and diarization, language identification as well as evaluation and speech applications of machine learning. I am currently coordinating 1 european project on lifelong learning evaluation, 1 French funded project on evolutive neural networks for speaker verification and I'm PI in two other French funded project related to privacy preserving and speaker diarization. I am the former head of the Computer Sciences department of ENSIM (Ecole Nationale Supérieur d'Ingénieur du Mans)

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## Olivier Péton, LS2N Nantes



#### Professor, Institut Mines Télécom Atlantique Deputy head for teaching, Department of Automation, Production and Computer Sciences

Operations research, Logistics, Supply chain, Transportation

My research focuses on combinatorial optimization models and methods that arise in innovative logistics and transportation systems. My main research activity is the development of metaheuristics and hybrid exact/ heuristic methods for the optimization of facility location, collaborative supply chain networks, multi-echelon distribution systems, demand responsive transport, city logistics, green supply chain management. I have been teaching in the field of Operations Research and Supply Chain Management at IMT Atlantique since 2004.

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## Dalila Tamzalit, LS2N Nantes



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#### Assistant Professor, Université de Nantes

Software architecture, Software evolution, Software migration, SaaS mutlitenant, Micro-services, Digital Twin.

My research promotes Software Evolution Engineering rather than addressing software evolution on an ad hoc and case-by-case basis. Software Evolution Engineering requires concepts, (meta)models, processes and tools. The cornerstone of my research is to specify and abstract the evolution of the software in a reusable way to cope with changes. My teaching focuses on software design, reuse and implementation. I am also in charge, in the LS2N, of the transversal theme "Enterprise of the Future". Phone: +33 (0)2 51 85 80 54 – Dalila.Tamzalit@ls2n.fr http://dalila-tamzalit.com/fr/accueil/

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## Murielle Manin, Université de Nantes



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#### Executive director of Atlanstic 2020

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I manage the administrative and financial aspects of the Atlanstic 2020 program. I ensure the link with our digital ecosystem more particularly the actors of innovation. I am also in charge of communicating about our agenda and promoting the projects we fund.

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## **Contacts:**

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#### Laboratories

LS2N: www.ls2n.fr LARIS: http://laris.univ-angers.fr LERIA: http://leria.univ-angers.fr LIUM: https://lium.univ-lemans.fr

#### Institutions

Université d'Angers: www.univ-angers.fr Université de Nantes: www.univ-nantes.fr Le Mans Université: www.univ-lemans.fr Centrale Nantes: www.ec-nantes.fr Institut Mines Telecom Atlantique: www.imt-atlantique.fr CNRS/INS2I: https://ins2i.cnrs.fr Centre Inria Rennes Bretagne Atlantique: www.inria.fr/centre/rennes

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