



Clément Gaultier

PhD student specialized in Acoustic & Audio Signal Processing

M.Sc Research in Acoustics

Graduate Engineer specialized in Vibrations – Acoustics – Sensors

Education & Certifications

- Nov. 2015–Now **PhD student specialized in acoustic & audio signal processing**, *Inria Rennes research center, Rennes, Research.*
Early stage researcher for 3 years
Expected graduation: End of 2018
Projects: acoustic & audio signal processing inverse problems
- denoising, declipping, dereverberation,
- structured (co)sparse for time-frequency modeling,
- non-convex optimization algorithms,
- virtually supervised learning for binaural sound source localization.
- 2014–2015 **Master 2 Acoustics**, *Université du Maine, Le Mans, Research, with Honours.*
A University Master of Science under the authority of the French Ministry of Education and Research
Graduated in: 2015
Specialized in: acoustics
Project: Characterization of inhomogeneous membranes vibrations (psychoacoustic descriptors, spectrum analysis, vibration behaviour)
- 2012–2015 **Acoustics and vibrations graduate engineer**, *ENSIM - École Nationale d'Ingénieurs du Mans, Le Mans, Spécialité Acoustique - Vibration - Capteurs.*
A selective Engineering School in three years under the authority of the French Ministry of Education and Research delivering a postgraduate degree in engineering
Graduated in: 2015
Specialized in: vibration, acoustics, sensors
Projects: With ONERA the French Aerospace Lab (acoustic measurements, signal processing, BEM modelling, correlation techniques)
- 2010–2012 **Diplôme d'Études Universitaires Générales**, *Université du Maine, Le Mans, Physique.*
A two-year university degree specialized in: Computing, Optics, Mathematics, Mechanics
Projects: Creation of an graphic user interface to interact with a NAO robot through WiFi
- 2009–2010 **One year preparatory class**, *Lycée Montesquieu, Le Mans.*
Specialized in: Mathematics, Physics and Engineering Sciences
- 2007–2009 **Baccalauréat S (mention bien)**, *Lycée Marguerite Yourcenar, Le Mans, with Second Class Honours.*
French baccalaureate: French secondary school diploma equivalent to British A-levels
Specialized in: Mathematics and Physics

7 Allée Jean de la Varenne (Apt. 36) – 35700 Rennes – FRANCE

☎ +33 (0) 6 29 50 90 72 • ✉ clement.gaultier@inria.fr • 🌐 gaultier.io
clement-gaultier •

Professional Experience

- March 2015–August 2015 **Engineer-in-Training / M.Sc Internship**, *Institute of Sound and Vibration Research*, Southampton, University of Southampton.
Research work on auditory system, hearing in noise, speech intelligibility, signal processing
Setting up a listening experiment for people with normal hearing
- July 2014 **Industrial machine operator**, *Renault*, Le Mans, Renault Le Mans' Factory.
Production line loading, quality control tasks.
- July 2013 **Placement: worker**, *Renault*, Le Mans, Renault Le Mans' Factory.
Handling, cleaning and control.
- 2011–2014 June & July **Ticket inspector, controller**, *Automobile Club de l'Ouest*, Le Mans.
Hire based on personality, foreign language speaking skills to welcome a British public
Inform & inspect the tickets of car race spectators
- July & August 2010 **Temporary Worker**, *SCIE*, Trangé.
Part time work for an industrial oil recycling company
Stocktaking, storing, cleaning & dismanteling before warehouse relocation

Languages

- French **Native language**
- English **Fluent** *Obtained from doing numerous trips in English-speaking countries (England, Malta)
Scored 945 out of 990 and 900 out of 990 points on TOEIC test in April 2012 and May 2014*
- Spanish **Basic knowledge**

Computer skills

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|--------------------------|---|----------------------|--|
| Programming | C, C++, bash, python, distributed computing | Scientific softwares | MatLab, Labview, COMSOL, LMS VirtualLab, LMS TestLab |
| Operating Systems | Mac OS, Windows, Linux | Office softwares | Microsoft Suite, LibreOffice Suite, \LaTeX |
| Computer Assisted Design | SolidWorks, Catia | Web | Html, CSS, CMS, WordPress, Jekyll |

Interests

- 2008–Now **Club Alpin Français**.
Rock-climbing, bouldering, skiing in a mountain sport association
- July 2012 **Ecole de musique de l'Antonnière**, *Sarthe*, FRANCE.
Project : Setting up of a music summer camp with acting, music, songs and a background story
- 2010–2012 **University Jazz Band**.
Playing the saxophone, performing concerts
- 1999–2009 **Music Schools**.
Learning & playing the saxophone, Singing in a choir

Extra

Driving license

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Publications

C. Gaultier, N. Bertin, and R. Gribonval, “CASCADE: Channel-Aware Structured Cosparse Audio DEclipper,” in *2018 IEEE International Conference on Acoustics, Speech and Signal Processing*, 2018.

C. Gaultier, N. Bertin, S. Kitić, and R. Gribonval, “A modeling and algorithmic framework for (non) social (co) sparse audio restoration,” *arXiv preprint arXiv:1711.11259*, 2017.

C. Gaultier, S. Kitić, N. Bertin, and R. Gribonval, “AUDASCITY: AUdio Denoising by Adaptive Social CosparsITY,” in *2017 25th European Signal Processing Conference (EUSIPCO)*. IEEE, 2017, pp. 1265–1269.

—, “Cosparse denoising: The importance of being social,” in *The Signal Processing with Adaptive Sparse Structured Representations (SPARS) workshop*, 2017.

C. Gaultier, S. Kataria, and A. Deleforge, “VAST: The Virtual Acoustic Space Traveler dataset,” in *International Conference on Latent Variable Analysis and Signal Separation*. Springer, 2017, pp. 68–79.

S. Kataria, C. Gaultier, and A. Deleforge, “Hearing in a shoe-box: binaural source position and wall absorption estimation using virtually supervised learning,” in *2017 IEEE International Conference on Acoustics, Speech and Signal Processing*. IEEE, 2017, pp. 226–230.

R. Gokula, C. Gaultier, J. J. M. Monaghan, and S. Bleeck, “Acclimatization to different english accents for enhanced speech intelligibility in noise in individuals with normal hearing,” in *Basic Auditory Science Meeting*. British Society of Audiology, 2015.