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)sparsity 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

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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

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.

G. Rakshita, 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.

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