

Romain Hennequin

Audio Processing Scientist

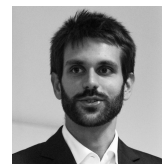
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30 years old



Experience

- Since 2012 **Research engineer in audio processing**, *Audionamix*, Paris, France.
In charge of research and development in the area of underdetermined audio source separation. Lead developer of the source separation engine of [ADX TRAX](#).
- 2008–2011 **PhD. in Signal processing**, *Telecom ParisTech*, Paris, France.
Work about audio spectrogram decompositions based on non-negative matrix factorization. Application in polyphonic transcription, selective music signal editing, source separation . . .
- Winter 2011 **Visiting scholar**, *University of Illinois*, Urbana-Champaign, USA.
- 2008–2011 **Graduate teaching assistant**, *Université Pierre et Marie Curie*, Paris, France.
Mathematics classes for undergraduates.
- 2008 **Research intern**, *UVI*, Paris, France.
Measurement, Identification and Simulation of non-linear audio systems. Pioneering work about non-linear audio FX sampling.
- 2007 **Research intern**, *Linköping University*, Norrköping, Sweden.
Binaural sound source localisation and separation
- 2004–2005 **Military intern**, *Francazal Air base*, Toulouse, France.
Head of operational training in the guarding squadron.
- Summer 2006 **Internship period**, *Il Patio*, Omsk, Russia.
Cook in a Siberian pizzeria.

Education

- 2008–2011 **PhD**, *Telecom ParisTech*, Paris, Signal Processing.
Decomposition of musical spectrograms informed by spectral synthesis models. Modeling of time variations in sound elements.
- 2007–2008 **Master**, *UPMC Paris VI - IRCAM*, Paris, Computer Science, ATIAM.
Acoustics, signal processing and computer science applied to music. *Passed with high honors*.
- 2007–2008 **Engineer's degree**, *Telecom ParisTech*, Paris, Signal Processing, Computer Science.
- 2004–2007 **Engineer's degree**, *Ecole Polytechnique*, Paris, Applied mathematics, computer Science.
- 2002–2004 **CPGE**, *Lycée Louis-Le-Grand*, Paris, Mathematics-Physics, and computer science.

Skills

- Science Expert in audio signal processing:
- Sparse and unsupervised spectrogram decompositions.
 - Audio Source Separation.
 - Machine Learning, Music Information Retrieval, Fingerprinting.
 - Filtering, time/frequency analysis, stochastic signal processing.
 - Realtime processing.
- Software engineering Matlab, C++, Python, Java – SVN, git – Agile software development (Scrum) – Linux, Mac OS.
- Languages French (*mother tongue*), English (*full professional proficiency*, TOEFL : 617), Russian (*limited professional proficiency*), Spanish (*notions*).

Hobbies

- Music Guitarist in a rock band regularly performing live: [Tak'One](#).
- Electronic Design and development of MIDI controllers based on Arduino.
- Software dev Development of Iphone applications: [Virtual Metronome](#).
- Sports Running, bike, kite surf