

# Mai Quyen PHAM | PhD in signal processing

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## Education

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<b>GIPSA Lab, Grenoble</b> <i>Post-doc, in ARMADA Project</i>	<b>France</b> <i>March, 2015–now</i>
<b>Paris-Est University</b> <i>PhD student, in Signal processing</i>	<b>France</b> <i>2012–January, 2015</i>
<b>Aix-Marseille 1 University</b> <i>Master degree, in Software Engineering and Statistics</i>	<b>France</b> <i>2009–2011</i>
<b>Hanoi National University of Education</b> <i>Bachelor, in Mathematics</i>	<b>Viet Nam</b> <i>2003–2007</i>

## Thesis

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**title:** *Sparse representations for seismic wave fields restoration and quantitative analysis*

**supervisors:**

- Prof. Jean-Christophe Pesquet
- Dr. Laurent Duval
- Dr. Caroline Chaux

## Experience

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<b>UPEMLV</b> <i>Teaching assistant, in algebra and signal processing</i>	<b>France</b> <i>2012–2014</i>
<b>CEA Cadarache</b> <i>Internship at, DSM/IRFM</i> Analysis and processing of signals from a reflectometer for measuring the profile of a plasma electron density of fusion	<b>France</b> <i>April–September, 2011</i>
<b>Aix-Marseille 1 University</b> <i>Internship at, LI2M</i> A comparison of denoising methods for images	<b>France</b> <i>January–March, 2011</i>

## Languages

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**English:** reading, writing and speaking

**French:** reading, writing and speaking

**Vietnamese:** mother language

## Computer skills

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**Linux, Windows environments:** Matlab, Visual Basic C++, CodeBlocks

**Programming languages:** Java, LaTeX, MySQL, HTML, SVN

## Publications

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### Journal papers:

- 1) M.-Q. Pham, L. Duval, C. Chaux and J.-C. Pesquet, "A Primal-Dual Proximal Algorithm for Sparse Template-Based Adaptive Filtering: Application to Seismic Multiple Removal", IEEE Transactions on Signal Processing, Vol. 62, No. 16, August 15, 2014, pp. 4256–4269.
- 2) A. Repetti, M.-Q. Pham, L. Duval, E. Chouzenoux and J.-C. Pesquet, "Euclid in a Taxicab: Sparse Blind Deconvolution with Smoothed  $l_1/l_2$  Regularization", IEEE Signal Processing Letters, vol. 22, No. 5, May 2015, pp. 539–543.
- 3) M.-Q. Pham, B. Oudompheng, B. Nicolas and J.- I. Mars, "A Noise Robust Method with Smoothed  $l_1/l_2$  Regularization for Sparse Moving-Source Mapping" Submitted, 2016.

### Patent:

- 4) Caroline Chaux, Laurent Duval, Jean-Christophe Pesquet, Mai Quyen Pham, "Procédé de traitement de réflexions multiples", France, 12/02.299. Aug. 2012

### Invited paper:

- 5) M.-Q. Pham, C. Chaux, L. Duval and J.-C. Pesquet, "A constrained-based optimization approach for seismic data recovery", Special session on "SS5 - Seismic Signal Processing", IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP, May 4–9, 2014), Florence, Italy

### Conference papers:

- 6) M.-Q. Pham, C. Chaux, L. Duval and J.-C. Pesquet, "Seismic multiple removal with a primal-dual proximal algorithm", IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP, May 26–31, 2013), Vancouver, Canada
- 7) M.-Q. Pham, C. Chaux, L. Duval et J.-C. Pesquet, "Filtrage de multiples sismiques par ondelettes et optimisation convexe", (GRETSI, September 3–6, 2013), Brest, France
- 8) M.-Q. Pham, C. Chaux, L. Duval and J.-C. Pesquet, "Dual-tree wavelet based adaptive filtering for 2D seismic data", International Conference on Mathematics in Signal Processing (IMA, December 15–17, 2014), Birmingham, UK
- 9) M.-Q. Pham, C. Chaux, L. Duval and J.-C. Pesquet, "Sparse adaptive template matching and filtering for 2D seismic images with Dual-tree wavelets and proximal methods", IEEE International Conference on Image Processing (ICIP, September 27–30, 2015), Québec, Canada
- 10) M.-Q. Pham, B. Oudompheng, B. Nicolas and J.- I. Mars, "Sparse deconvolution for moving-source localization", IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP, March 20–25, 2016), Shanghai, China

- 11) L. Lamotte, B. Nicolas, M.-Q. Pham and B. Oudompheng, "A theoretical and experimental comparison of the deconvolution methods for moving sources", Berlin Beamforming Conference (Bebec, February 29–March 1, 2016), Berlin, Germany
- 12) L. Lamotte, B. Nicolas, B. Oudompheng, M.-Q. Pham and D. Fattaccioli "ARMADA: localisation et contribution des sources au bruit de passage d'un navire", CFA/VISHNO, 2016
- 13) M.-Q. Pham, N. Ducros and B. Nicolas, "BVMF-B algorithm for nonconvex nonlinear regularized decomposition of spectral x-ray projection images", SPIE Medical Imaging 2017, February 11-16, 2017, Orlando, Florida United States.