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Date of birth: 5th October 1986
Place of birth: Toulon (France)
Nationality: French

Education

- October 2010-
December 2013** PhD at the Laboratory of Mechanics and Acoustics (Marseille, France),
passed with first class honours
*Time-domain numerical modeling of poroelastic waves:
the Biot-JKD model with fractional derivatives*
- 2009-2010** Master's degree at IRPHE (Marseille, France), passed with honours
Fluid mechanics and non-linear physics
- 2007-2010** Engineering degree from Ecole Centrale Marseille (ECM)
Fluid, Energy, Transport, Environment, Health
- 2004-2007** Three years of undergraduate studies in physics and mathematics leading to a
competitive exam for French « Grandes Ecoles »
- June 2004** Scientific « Baccalauréat » in Mathematics and physics, passed with honours

Work experiences

- Since December 2013** Postdoctor at Uppsala University
Department of Information and Technology, Division of Scientific Computing
*Numerical modeling of reaction-diffusion system:
subdiffusion and molecular crowding in living cells*
- September 2013-
December 2013** Teaching assistant: ATER at ECM (62h)
*numerical analysis (32h), probability and statistics (14h),
fundamental mathematics (16h)*
- September 2012-
September 2013** Teaching assistant: monitrice at ECM (61h)
*numerical analysis (22h), probability and statistics (20h), Scilab practicals (14h),
fundamental mathematics (5h)*

Publications

- E. Blanc, G. Chiavassa, B. Lombard, "Biot-JKD model : simulation of 1D transient poroelastic waves with fractional derivatives", *Journal of Computational Physics*, 237 (2013), 1-20.
<http://hal.archives-ouvertes.fr/docs/00/76/38/59/PDF/Jcp5.pdf>

- E. Blanc, G. Chiavassa, B. Lombard, "A time-domain numerical method for Biot-JKD poroelastic waves in 2D heterogeneous media", accepted and to be published, *Journal of Acoustical Society of America* (2013).
<http://hal.archives-ouvertes.fr/docs/00/73/67/57/PDF/Jasa1-V1.pdf>
- E. Blanc, G. Chiavassa, B. Lombard, "Waves simulation in heterogeneous transversely isotropic porous media with fractional attenuation: a Cartesian grid approach", *soumis au Journal of Computational Physics* (2014).
<http://hal.archives-ouvertes.fr/docs/00/94/96/86/PDF/Jcp7-V1.pdf>
- E. Blanc, "Time-domain numerical modeling of poroelastic waves: the Biot-JKD model with fractional derivatives", thèse de doctorat d'Aix-Marseille Université (2013).
<http://tel.archives-ouvertes.fr/docs/00/95/57/61/PDF/these.pdf>

Congress

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| May 2011 | Recent Developments in Wave Physics of Complex Media (Cargèse, France). |
| June 2011 | XXIIème Journées d'Acoustique Physique Sous-Marine et Ultrasonore (Lille, France). |
| December 2011 | Symposium on the Acoustics of Poro-Elastic Materials (Ferrara, Italy). |
| April 2012 | 11ème Congrès Français d'Acoustique et 2012 Annual IOA Meeting (Nantes, France).
Conference proceedings: "Biot-JKD model: simulation of 1D transient poroelastic waves".
http://hal.archives-ouvertes.fr/hal-00675960 |
| May 2012 | Wave propagation in complex media and applications (Heraklion, Greece). |
| May 2012 | 41ème Congrès National d'Analyse Numérique (Super-Besse, France). |
| May 2013 | Congress SMAI 2013 : 6e Biennale Française des Mathématiques Appliquées et Industrielles (Seignosse Le Penon, France). |
| June 2013 | Workshop "Advances in Applied Mathematics and Mechanics" (Manchester, UK). |

Seminars

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| 11th September 2012 | Applied Analysis of Laboratoire d'Analyse, Topologie, Probabilités (Marseille, France). |
| 27th June 2013 | Applied Mathematics of Laboratoire de Mathématiques (Clermont-Ferrand, France). |

Languages and Computer skills

French: mother tongue.

English: fluent (PhD thesis written and defended in english, several trips in UK).

Office, Fluent, Gambit, MatLab, Scilab, FreeFem, LabView.

Programming languages: C, Java, HTML, PHP, SQL.