

Camilla Fiorini

Curriculum Vitae

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Info

Born February, 9th 1990, in Milan, Italy.
Citizenship Italian.

Current Position

Oct. 2018 - **Post-doc.**
Now *LJLL, Sorbonne Université, Paris.*

Education

- 2014-2018 **PhD in Applied Mathematics.**
LMV, UVSQ, Versailles, France and ACUMES, INRIA, Sophia Antipolis, France.
Title: Sensitivity analysis for nonlinear hyperbolic systems.
Advisors: Christophe Chalons, Régis Duvigneau.
- 2012-2014 **Master of Science in Mathematical Engineering, Politecnico di Milano, Milan, Italy.**
Thesis: Optimization of unsteady PDEs systems using a multi-objective descent method.
Final grade: 110/110 cum laude.
- 2009-2012 **Bachelor in Mathematical Engineering, Politecnico di Milano, Milan, Italy.**
Thesis: Numerical and mathematical model of lower limbs and cerebral venous system.
Final grade: 108/110.
- 2004-2009 **Classical High School, Liceo Classico G. Carducci, Milan, Italy.**

Teaching activity

2015-2018 MA100: "Mathématiques générales 1", L1.

Work experience

Apr.-Aug. **Internship, Inria, Sophia Antipolis, France.**
2014 Definition of an efficient numerical strategy to minimize time dependent cost functional for flow control problems.

Computer skills

Languages C, C++, L^AT_EX, Matlab.
HPC Basics of OpenMP, MPI, CUDA.

Languages

Italian Mother tongue.
English Excellent. 2011, IELTS: 7.5 (C1).
French Fluent.

Other Activities

- 2017-2018 **Organisation of CANUM 2018**, member of the organising committee.
- 2016-2017 **Organisation of Junior Seminars**, LMV - Université Paris Saclay, Versailles, France. Monthly seminar for PhD students and Post-docs.
- 2016-2017 **PhD students delegate to the EDMH board**, Université Paris Saclay, France.

Conferences

- June 2018 École de recherche en mathématiques pour l'énergie nucléaire, Roscoff, France. **Invited speaker.**
- June 2018 HYP2018, State College, PA, USA. Talk.
- May 2018 CANUM, Cap d'Agde, France. Talk.
- May 2018 Silver SHARK-FV, Minho, Portugal. Talk.
- Feb. 2018 CEA-SMAI/GAMNI, Paris, France. **Invited speaker.**
- June 2017 FVCA8, Lille, France. Poster presentation.
- June 2017 Congrès SMAI 2017, Ronce-les-Bains, France. Talk.
- May 2017 SIAM OP17, Vancouver, Canada. Talk. **Winner of the SIAM Travel Award.**
- May 2017 Purple SHARK-FV, Ofir, Portugal. Talk.
- April 2017 School on Uncertainty Quantification for Hyperbolic Equations and Related Topics, GSSI, L'Aquila, Italy. Talk.
- Nov. 2015 Mathematics and Social Sciences Workshop, Imperial College, London, UK. Poster presentation.

Publications

- [1] C. Chalons, R. Duvigneau, C. Fiorini. *Sensitivity equation method for the Euler equations in presence of shocks applied to uncertainty quantification*, submitted to JCP.
- [2] C. Chalons, R. Duvigneau, C. Fiorini. *Sensitivity analysis and numerical diffusion effects for hyperbolic PDE systems with discontinuous solutions. The case of barotropic Euler equations in Lagrangian coordinates*, to appear in SJSC.
- [3] C. Chalons, R. Duvigneau, C. Fiorini. *Sensitivity analysis for the Euler equations in Lagrangian coordinates*. In International Conference on Finite Volumes for Complex Applications (pp. 71-79). Springer, Cham, 2017.
- [4] C. Fiorini. *Optimization of running strategies according to the physiological parameters for a two-runners model*. Bulletin of Mathematical Biology, 79.1 (2017): 143-162.
- [5] C. Fiorini, R. Duvigneau and J.-A. Désidéri. *Optimization of an Unsteady System Governed by PDEs using a Multi-Objective Descent Method*. 2014, RR-8603 - INRIA.