

Florian Blachère

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Doctor-engineer in applied mathematics

Positions

- September 2017 — **Assistant professor**, *Team GAMMA3, Institut Charles Delaunay*, Université de technologie de Troyes.
Today
- October 2016 — **Post-doctoral contract**, *Laboratoire de Mathématiques de Versailles*, Université de Versailles
August 2017 *Saint-Quentin-en-Yvelines, IMOSE*.

The post-doctoral contract is funded by the Fondation Mathématique Jacques Hadamard (FMJH) and Hadamard Mathematics Labex (LMH) to work with IMOSE (Institut pour la Modélisation et l'Optimisation des Systèmes et des Énergies) created by C. Chalons and L. Dumas, which aims at make a link between companies with needs of simulation and modelisation and researchers.

Educations

- October 2013 — **PhD**, *Laboratoire de Mathématiques Jean Leray*, Université de Nantes, France.
September 2016 “High order and asymptotic preserving schemes for radiative hydrodynamics”, under the direction of R. Turpault (Institut de Mathématiques de Bordeaux).
The aim of this PhD thesis is to design a high-order and explicit finite volume scheme which conserves the asymptotic behaviour of hyperbolic systems of conservations laws with stiff source terms which degenerate to a diffusion limit. This work is conducted on 2D unstructured meshes and the main difficulty is the preservation of the set of admissible states in all regimes.
- November 2013 **Engineering's degree**, *ENSEIRB-MATMECA*, Bordeaux-INP, France.
Graduate School of Engineering in Mathematical modelling and mechanics
- September 2013 **Master's degree**, *Université de Bordeaux*, France.
Master in modelling, mathematical engineering, statistic and economic (MIMSE)

Publications

- F. Blachère, R. Turpault. An asymptotic-preserving scheme for systems of conservation laws with source term on 2D unstructured meshes with high-order MOOD reconstruction, *Comput. Methods Appl. Mech. Engrg.* (2017), [10.1016/j.cma.2017.01.012](https://doi.org/10.1016/j.cma.2017.01.012)
- F. Blachère, R. Turpault, An admissibility and asymptotic-preserving scheme for systems of conservation laws with source term on 2D unstructured meshes, *J. Comput. Phys.* (2016), [10.1016/j.jcp.2016.03.045](https://doi.org/10.1016/j.jcp.2016.03.045).

Communications

- Mars 2018 ANR ACHyLLES - final workshop, Bordeaux, France
Juin 2017 Congrès SMAI 2017, La Tremblade, France
August 2016 Hyp 2016, Aachen, Germany
May 2016 SHARK-FV, São Félix, Portugal
June 2015 NumHyp, Cortona, Italy
June 2015 Summer school of the GDR EGRIN, Piriac, France
April 2014 SHARK-FV, Ofir, Portugal