

Jiao HE

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Education

2019-present, University of Paris-Saclay, Paris, France

Post-doc Researcher funded by the Programme Sophie Germain of FMJH.

2016-2019, Claude Bernard University Lyon 1, Villeurbanne, France

Date of defense : 20 September, 2019

Thesis title : Motion of a small rigid body in an incompressible viscous fluid, convection problems and dynamics of falling films.

Advisors : Dragoş IFTIMIE (Lyon 1, ICJ), Lorenzo BRANDOLESE (Lyon 1, ICJ).

2015-2016, University of Picardie Jules Verne, Amiens, France

M2, AAM (Applied Analysis and Modelisation), UFR Sciences

Feb-June 2016, Thesis of master 2 supervised by Mr. Youcef MAMMERI.

Theme: The deterministic and stochastic behavior of fractional Benjamin-Bona-Mahony equation and their numerical methods.

2010-2015, Central China Normal University, Wuhan, China

B.S. and M1 in Mathematics.

Publications

- [1] Diego Chamorro, Fernando Cortez, Jiao He and Oscar Jarrín. On the local regularity theory for the MHD equations (Submitted).
- [2] Edoardo Bocchi, Jiao he and Gaston Vergara. Wave-structure interactions (Submitted).
- [3] Jiao He and Dragoş Iftimie. A small solid body with large density in a planar fluid is negligible (Journal of Dynamics and Differential Equations, 2018).
- [4] Jiao He and Dragoş Iftimie. Small moving rigid body into a 3D incompressible viscous fluid (Submitted).
- [5] Lorenzo Brandolese and Jiao He. Uniqueness theorems for the Boussinesq system (Tohoku Mathematical Journal, 2019).
- [6] Rafael Granero-Belinchón and Jiao He. On the dynamics of 3D electrified falling films (Submitted).
- [7] Jiao He and Youcef Mammeri. Remark on the well-posedness of weakly dispersive equations (ESAIM: Proceeding and surveys, 2018)

Research Experience

Short-term research experience

- 15 July- 23 August 2019** Centre International de Rencontres Mathématiques, Marseille
Geophysical Fluids, Gravity Flows (CEMRACS19)
- 3 - 31 May 2019** Shanghai Jiaotong University (China). Invited by Chengjie Liu.
- 13 -17 January 2019** Cantabria University (Spain). Invited by Rafael Granero-Belinchón .

Talks

- 9 August 2019, Centre International de Rencontres Mathématiques, Marseille**
Summer school on geophysical Fluids and Gravity Flows (CEMRACS19)
- 19 January 2019, Université Savoie Mont Blanc (Chambéry)**
Analysis and PDE seminar
- 19 October 2018, Institut Fourier, Grenoble Alpes University**
PhD seminar
- 14-18 May 2018, Claude Bernard University Lyon 1**
Colloque Inter'Actions en Mathématiques
- 23 April 2018, ENS de Lyon**
PhD seminar
- 3 April 2018, Claude Bernard University Lyon 1**
Analysis and PDE Seminar

Poster

- 20-22 March 2017, Savoie Mont-Blanc University, Autrans, France**
Young researcher PDE days 2017

Conferences

- 3-7 June 2019, Obernai, Alsace**
Partial differential equations days 2019
- 25-29 March 2019, Paris**
Celebrating Jean-Yves Chemin's 60th birthday.
- 8-9 November 2018, Institut Fourier, Grenoble**
Rhône-Alpes PDE days
- 27-31 August 2018, Bordeaux University, Bordeaux**
14th Franco-Roumain colloque in applied mathematics
- 11-15 June 2018, Obernai, Alsace**
Partial differential equations days 2018

21-23 Mars 2018, Université de Lorraine, Nancy

Young researcher PDE days 2018

5-9 June 2017, Roscoff, France

Partial differential equations days 2017

9-10 March 2017, Polytechnic University of Hauts-de-France, Calais

Conference : "Theory of the incompressible Navier-Stokes system and related topics"

10-21 March 2016, University of Picardie Jules Verne, Amiens

Spring school in hyperbolic system and conservation laws

Teaching Experience

Oct 2018 - Sept 2019, 64h TD in basic mathematical II, Claude Bernard University Lyon 1.

Tutorials on basic mathematical techniques for 1st year undergraduates in Maths-Info.

Spring 2018, 24h "Khôlles" in basic mathematical II, Claude Bernard University Lyon 1.

Oral assessments for 1st year undergraduates in mathematics.

Automne 2014, Central China Normal University, Wuhan (China).

Assistante in analysis Mathematics for 1st year undergraduates in mathematics.

Awards

Oct 2019 - Sep 2021, Post-docoral funding of Sophie Germain program of FMJH.

Languages

Chinese: **Mother tongue**

French: **Fluent**

English: **Fluent**

Computer skills

Programming: Python, Matlab, Scilab, R, Maple

Os: Linux, MS Windows

Office: LATEX, MS Office