

# Jiao HE

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Page personnelle : <https://jiao-math.github.io/jiao.he/>

## 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.

## 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.

## Articles

- [1] Edoardo Bocchi, Jiao he and Gaston Vergara. Wave-structure interactions (Submitted).
- [2] 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).
- [3] Jiao He and Dragoş Iftimie. Small moving rigid body into a 3D incompressible viscous fluid (Submitted).
- [4] Lorenzo Brandolese and Jiao He. Uniqueness theorems for the Boussinesq system (Tohoku Mathematical Journal, 2019).
- [5] Rafael Granero-Belinchón and Jiao He. On the dynamics of 3D electrified falling films (Submitted).
- [6] Jiao He and Youcef Mammeri. Remark on the well-posedness of weakly dispersive equations (ESAIM: Proceeding and surveys, 2018)

## Languages

Chinese: **Mother tongue**

French: **Fluent**

English: **Fluent**

## Computer skills

Programming: Python, Matlab, Scilab, R, Maple

Os: Linux, MS Windows

Office: LATEX, MS Office