

Giao Ky DUONG

Curriculum Vitae

PERSONAL DETAILS

Birth November 20, 1991
Address Po Box 129188, NYUAD, Saadiyat Island, Abu Dhabi, UAE
Phone (+84) 565 769 604
Mail duonggiaoky@gmail.com
Nationality Vietnamese

EDUCATION

B. S 2009-2013

An Giang University

- Pedagogy of Mathematics
- Supervisor: **Thanh Tai VO**, An Giang University

Master 2014-2016

Cooperation between Institute of Mathematics of Vietnam and Paris 13 University

- Master I: Institute of Mathematics of Vietnam, 2014 - 2015, Mathematics
- Master II: Paris 13 University, 2015 - 2016, Mathematics (Partial differential equations)
- Supervisor: **Hatem ZAAG**, Paris 13 University

PhD 2016 - 2019

Sorbonne Paris Nord University

- Mathematics: Partial differential equations
- Supervisor: **Hatem ZAAG**

Post-Doc 2019- 2021

New York University in Abu Dhabi

- Mathematics: Partial differential equations
- Supervisor: **Tej-Eddine GHOU**

WORK EXPERIENCE

Student monitoring 2013-2015

An Giang University

Student monitoring 2017-2019

Paris 13 University

SKILLS

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| <i>Languages</i> | Vietnamese (mother tongue) English (fluent) French (fluent) |
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RESEARCHS AND PUBLICATIONS

Researchs

- Scientific research for student, 2012:

Theory and applications of Fourier series

- Student graduate thesis, 2013:

Riemann - Stieltjes integral and applications

- Master thesis, 2016:

The blowup profile for semi-linear heat equations

- PhD thesis:

Finite time singularity formations for non symmetric or non variational partial differential equations

- Fields of interest: Finite time singularity formation for evolution equations, quenching phenomenon for MEMS devices, fluid mechanics and physical mathematics. In particular, I am studying finite time singularity formations for SQG equation which remains open.

Publications

[1] G. K. Duong and V. T. Nguyen and H. Zaag. Construction of a stable blowup solution with a prescribed behavior for a non-scaling invariant semi-linear heat equation, *Tunisian J. Math*, No. 1. p 13-45, 2019.

[2] G. K. Duong. Profile for the imaginary part of a blowup solution for a complex-valued seminar heat equation, *J. Funct. Anal*, 277, no. 5, 1531–1579, 2019.

[3] G. K. Duong. A blowup solution of a complex semi-linear heat equation with an irrational power, *J. Differential Equations*, 267, no. 9, 4975–5048, 2019.

[4] G.K. Duong and H. Zaag. Profile of touch-down solution to a nonlocal MEMS model, *Math. Models Methods Appl. Sci.* 29, no. 7, 1279–1348, 2019.

[5] G. K Duong and N. Nouaili and Hatem Zaag. Construction of blowup solutions for the Complex Ginzburg-Landau equation with critical parameters. (2020), Mem. Amer. Math. Soc, to appear.

[6] G. K. Duong and N. Kavallaris and H. Zaag. Diffusion-induced blowup solutions for the shadow limit model of a singular Gierer-Meinhardt system. (2020), submitted. arXiv:2010.09867.

[7] G. K Duong and N. Nouaili and Hatem Zaag. Refined asymptotic for the blow-up solution of the Complex Ginzburg-Landau equation in the subcritical case, (2020) reprint.

CONFERENCES AND SCIENTIFIC CONGRESS

- 1 Journées Jeunes EDPistes 2017, 03/2017, Autrans, France
- 2 French-American Conference on Nonlinear Dispersive PDEs, 06/2017, Luminy, Marseille, France
- 3 15th School on Interaction between Dynamical Systems, and Partial Differential Equations, 07/2017, Barcelona, Spain: **Poster**
- 4 VIe Colloque EDP-Normandie, 10/2017, Caen, France: **Poster**
- 5 Recent Trends in PDE, 01/2018, London, UK
- 6 Master class, 01/2018, Strassburg, France
- 7 Asymptotic analysis of dispersive partial differential equations, 05/2018, Florence, Italia: **Oral presentation**
- 8 The 9th Vietnam Mathematical Congress, 08/2018, Nha Trang, VietNam: **Oral presentation.**
- 9 One month in Chili University, Santiago, invited by Prof. Claudio Munioz: 31-July-2019-31-August-2019, financed by the University of Chili, Santiago, and the Foundation Sciences Mathématiques de Paris and Institute Galiléé, Paris 13 University.
- 10 Winter School on Evolution Equations and Applications, HaNoi, Vietnam, from 21-September- 2019 to 23 - September 2019.

PRIZE AND SCHOLARSHIP

Prize

- The National Olympiad of Mathematics for student of Universities in Vietnam: the 3rd prizes in 2011, 2012 and 1st in 2013
- Awarded the “An Giang Talent 2013”

Scholarship:

- Fondation Sciences Mathématiques de Paris: For Master II at Paris 13 University, 2015-2016
- The program INSPIRE which has received funding from the European Unions Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 665850.