

Cosmin BURTEA

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Personal informations

Date and place of birth : 7 Mai 1990, Craiova, Roumanie
Nationality : Romanian

Current Situation

2014-present : PhD student in mathematics, Paris-Est-Créteil University, France
Doctoral advisors : RAPHAËL DANCHIN, FRÉDÉRIC CHARVE

Education

1. 2013-2014 Master 2 Program of Mathematics for Life Sciences, École Polytechnique, Palaiseau, France
Research Internship : "On some remarks regarding a Boussinesq-type system"
Internship supervisor : RAPHAËL DANCHIN
2. 2012-2013 Master 1 Program of Pure Mathematics, École Polytechnique, Palaiseau, France
Research Internship : "Fourier analysis and applications to the Keller-Segel equations"
Internship supervisor : RAPHAËL DANCHIN
3. 2009-2012 Faculty of Mathematics, University "Alexandru Ioan Cuza", Iași, Romania

Honors and awards

1. Doctoral contract 2014-2017 delivered by the MSTIC doctoral school of Paris-Est University
2. The Jacques Hadamard Mathematics Foundation's scholarship for two-year Master program in mathematics at École Polytechnique, 2012-2014
3. Third Prize for the results obtained at the 18th IMC 2011, 23-29 July 2011, Blagoevgrad, Bulgaria
4. First Prize at the National Mathematical Contest "Traian Lalescu", 13-15 April 2011, Constanța, Romania
5. Silver Medal at the 5th SEEMOUS, 2-6 March 2011, Bucharest, Romania
6. Silver Medal at the 4th SEEMOUS, 8-13 March 2010, Plovdiv, Bulgaria
7. Gold Medal and First Prize at the Romanian National Olympiad, 10-16 April 2009, Constanța, Romania

Scientific Activity

Publications

- « New long time existence results for a class of Boussinesq-type systems », Journal de Math. Pures et Appl., Volume 106, Issue 2, August 2016, Pages 203-236,
<http://dx.doi.org/10.1016/j.matpur.2016.02.008>
- « Long time existence results for bore-type initial data for BBM-Boussinesq systems », Journal of Differential Equations 261 (2016), pp. 4825-4860,
<http://dx.doi.org/10.1016/j.jde.2016.07.014>
- « Optimal well-posedness for the inhomogeneous incompressible Navier-Stokes system with general viscosity », preprint,
<http://arxiv.org/abs/1608.02378v1>

Research Grants

- member of a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS-UEFISCDI, project number PN-II-RU-TE-2014-4-0320

Talks at conferences

- Colloque Franco-Roumain de Mathématiques Appliquées, Iași, 25-29 August, 2016
- Séminaire des doctorants (PhD seminar), Créteil, 21th of October, 2015
- Mathflows 2015, Porquerolles, 13-18 September, 2015
- "An existence result for a semilinear problem with non local initial conditions" (in romanian) which I presented at the National Mathematics Contest "Traian Lalescu", Constanța, 13th-15th of April, 2011
- A Darboux-type characterization of Riemann integrability which I presented at the International Student Conference on Pure and Applied Mathematics, Iași, 12th-16th of July 2010

Teaching Activity

Paris-Est Créteil University :

- 2016-2017
 - 36h, "Mathématiques pour la physique 2" (Linear algebra, Real Analysis, Geometry), L2-level
 - 24h, "Mathématiques pour la physique 4" (Complex Analysis), L3-level
- 2015-2016
 - 36h, "Analyse 2", L1-level
 - 28h, "Mathématiques pour la physique 2" (Linear algebra), L2-level

Miscellaneous

- Languages :
 - French : C1 level
 - English : C1 level
- Computer skills : Scientific Workplace, L^AT_EX, FreeFem++, Matlab
- During 2010-2012, I was a student representative in the faculty council and in the university senate

References

- RAPHAËL DANCHIN, Paris-Est University, Créteil, France
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- FRÉDÉRIC CHARVE, Paris-Est University, Créteil, France
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- CHRISTOPHE GIRAUD, Paris-Sud University, Orsay, France
`christophe.giraud@math.u-psud.fr`
- IOAN I. VRABIE, "Alexandru Ioan Cuza" University, Iași, Romania
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