1 Curriculum Vitae

Mioara Maria Joldes

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Work

2013– CNRS Researcher (CR1, Section 06) at LAAS-CNRS, Toulouse, France.
2011–2013 Postdoctorant, Computer-aided proofs in analysis (CAPA) Team, Mathematics Department, Uppsala University, Sweden.

Education

2008–2011 PhD in Computer Science at École Normale Supérieure de Lyon
Thesis subject: Rigorous polynomial approximations and applications, defended Sept. 26, 2011
Phd advisors: Nicolas Brisebarre and Jean-Michel Muller

2007–2008 Master Diploma in Computer Science at École Normale Supérieure de Lyon
Master report subject: Computation of various infinite norms, in one or several variables, for the development of mathematical libraries. Supervisors: Nicolas Brisebarre and Jean-Michel Muller.

2003–2008 Engineer Diploma obtained in June 2008 from Technical University of Cluj-Napoca, Computer Science Department, grade 10/10.

Fellowships

2007–2008 International master scholarship at ENS Lyon, which allowed me to obtain a double diploma in 2008.

Supervision

PhD students:


Licence and Master students:

2014 Supervisor of V. Popescu (Master 2, now my PhD Student).

2014 Co-Supervisor of O. Marty, (Licence 3, now PhD Student at ENS Cachan).

2015 Co-Supervisor of N. Deak, (Licence 3, now Master Student at ENS Lyon).

2015 Co-Supervisor of B. Fulop, (Licence 3, now Master Student at ENS Lyon).

2016 Co-Supervisor of F. Bréhard, (Master 2, now my PhD Student).

Teaching

2014–2015 Linear Control Systems (Licence 2 Students, ENSICA Toulouse),

2014–2015 C Programming (Master 1 Students, Université Paul Sabatier, Toulouse).

Vulgarisation

2010, 2013 Broad audience talks at Young Mathematicians Forum, intended for promoting, encouraging, emphasizing the participation of women in Mathematics.

Invited stays

- **May 2017**: University of Strathclyde, Department of Mechanical & Aerospace Engineering, Glasgow, UK.
- **May 2015, October 2014 and May 2013**: AriC Team, LIP, Lyon, France.
- **March 2011 and December 2014**: CAPA Group, Uppsala University, Sweden.
- **April 2012**: National Institute of Aerospace, Hampton, Virginia, USA.
- **October 4-8, 2010**: Algorithms Project, INRIA, Rocquencourt, France.
- **June 2009**: Intel, Portland, USA.

PhD Defense Juries

Member of Jury for Valentina Popescu thesis, entitled *Towards fast and certified multiple-precision libraries*, July 6, 2017, Lyon, ENS Lyon, LIP.

Member of Jury for Romain Serra thesis, entitled *Opérations de proximité en orbite : évaluation du risque de collision et calcul de manœuvres optimales pour l’évitement et le rendez-vous* (In-orbit Servicing: Collision Risk Assessment and Optimal Maneuvers for Collision Avoidance and Rendezvous), December 12, 2015, Toulouse, INSA, LAAS-CNRS.

Reviewer (Principal Opponent) of Ferenc M. Bartha thesis, entitled *Computer-aided proofs and algorithms in analysis*, for the PhD-degree of the University of Bergen, Mathematics Department, Norway, June 14, 2013.

Invited Plenary Speaker


Conference Organization


2015 Symbolic-Numeric Session of SEAMAC Days: 2 days of seminars, talks and animation with MAC Team and invited speakers.

Program Committee, Reviewing

Management

I am strongly involved in the management of the ANR project FastRelax (10/2014–09/2019). I am the head of a Research Collaboration Project with CNES (French Space Agency), Global Collision Probability Assessment and Station Keeping of Satellites (09/2016-04/2017).

Major Collaborations

Aerospace Partners: CNES (French Space Agency) and Airbus Defence and Space (formerly known as Astrium) Since September 2014, I am/was part of research collaborations concerning Collision Risk Assessment and In-Orbit Servicing.

CAPA Team, Uppsala, Sweden Since 2011 I collaborate with Computer Aided Proofs in Analysis (CAPA) team, Mathematics Department, Uppsala, Sweden. I work with Prof. Warwick Tucker for solving problems in Discrete Dynamical Systems with the help of high performance computing. For that, we do mutual visits and research seminars.

AriC Team, LIP, Lyon I collaborate with AriC Team in various projects (thesis of V. Popescu, ANR FastRelax; thesis of F. Bréhard) related to Computer Arithmetic and Computer Algebra (N. Brisebarre, J.-M. Muller, V. Popescu, B. Salvy). We hope that this collaboration will result in a broader visibility, understanding and application of arithmetic and computer algebra techniques for the automatic control community.

Pequan Team, LIP6, Paris I collaborated with my co-authors M. Mezzarobba and Ch. Lauter in the field of validated methods using truncated power or Chebyshev series.