

# Curriculum Vitae et Studiorum

## Vito Crismale

### PERSONAL DATA

Name Vito Crismale

Birthdate 15/07/1988

Birthplace Bari, Italy

Nationality Italian

Position PostDoc FMJH in Applied Mathematics, program *Mathématiques Ingénierie* at CMAP, École Polytechnique

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### EDUCATION

10/12-09/16 **PhD in Applied Mathematics**, SISSA (International School for Advanced Studies), Trieste (Italy), **cum laude**

Title of the thesis: *Some results on quasistatic evolution problems for unidirectional processes*

Advisors: Prof. G. Dal Maso and Dr. G. Lazzaroni

External referees: Prof. A. Mielke (WIAS Berlin) and Prof. U. Stefanelli (University of Wien)

10/10-05/12 **M.Sc. in Mathematics (Laurea Magistrale in Matematica)**, Università degli Studi di Bari Aldo Moro, Bari (Italy), *Curriculum in Pure Mathematics*, **110/110 cum laude**

Title of the thesis: *Variational methods and soliton-type solutions for some field equations*

Advisors: Prof. D. Fortunato and Prof. L. Pisani

Field: *Nonlinear Analysis*

August 11 **Summer Courses - Perugia 2011**, Scuola Matematica Interuniversitaria (SMI), Functional Analysis (graduation mark A/A), Differential Equations in Mathematical Physics (graduation mark A/A)

10/07-07/10 **B.Sc. in Mathematics (Laurea Triennale in Matematica)**, Università degli Studi di Bari Aldo Moro, Bari (Italy), *Curriculum in Pure Mathematics*, **110/110 cum laude**

Title of the thesis: *On set-theoretic complete intersections*

Advisor: Prof. M. Barile

Field: *Commutative Algebra*

09/02-07/07 **High school diploma-Maturità classica (Secondary school focusing on humanities)** Liceo Classico Socrate, Bari (Italy), **100/100**

## AWARDS AND SCHOLARSHIPS

- 10/16-09/18 **Post-doctoral fellowship FMJH, program *Mathématiques Ingénierie*, Fondation Mathématique Jacques Hadamard**
- 10/12-09/16 **Doctoral scholarship, SISSA, Trieste**
- 2011 **Eligible for INdAM National scholarship for Master Students in Mathematics**, 13th classified in Italy, Istituto Nazionale di Alta Matematica “F. Severi” (INdAM)
- 2007-2010 **INdAM National scholarship for Bachelor Students in Mathematics** for the year 2007-2008, maintained by merit for the following two years, Istituto Nazionale di Alta Matematica “F. Severi” (INdAM)
- 2010 **Honorable mention for best graduate in Mathematics**, Università degli Studi di Bari Aldo Moro, Bari

## PUBLICATIONS AND PREPRINTS

The preprint version of the papers below and the PhD Thesis can be consulted at <http://cvgmt.sns.it/person/1642/>.

- [1] V. Crismale, *Globally stable quasistatic evolution for a coupled elastoplastic–damage model*, ESAIM Control Optim. Calc. Var. 22, 883-912 (2016)
- [2] V. Crismale, G. Lazzaroni, *Viscous approximation of quasistatic evolutions for a coupled elastoplastic–damage model*, Calc. Var. Partial Differ. Equ. 55 : Art. 17 (2016)
- [3] V. Crismale, *Globally stable quasistatic evolutions for strain gradient plasticity coupled with damage*, Ann. Mat. Pura Appl. 196, 641-685 (2017)
- [4] V. Crismale, G. Lazzaroni, *Quasistatic crack growth based on viscous approximation: a model with branching and kinking*, Nonl. Diff. Eqns. Appl. (NoDEA) 24 : Art. 7 (2017)
- [5] V. Crismale, G. Lazzaroni, G. Orlando, *Cohesive fracture with irreversibility: quasistatic evolution for a model subject to fatigue*, Submitted Paper
- [6] V. Crismale, G. Orlando, *A Reshetnyak-type lower semicontinuity result for linearised elasto-plasticity coupled with damage in  $W^{1,n}$* , Submitted Paper
- [7] A. Chambolle, V. Crismale, *A density result in  $GSBD^p$  with applications to the approximation of brittle fracture energies*, Submitted Paper

## INVITED SEMINARS/TALKS

- 19-23/03/18 GAMM 89th Annual Scientific Conference, München, Germany - Mini Symposium *Variational Aspects of Multiscale Modelling in Materials Science*
- 26/09/17 University of Brescia, Italy
- 05/09/17 XXIII Congress of AIMETA-*Associazione Italiana di Meccanica Teorica e Applicata*-Italian Association of Mechanics, Salerno, Italy - Mini Symposium 8
- 06/03/17 University *La Sapienza*, Rome, Italy

- 14/02/17 Miniworkshop on dislocations, plasticity, and fracture, SISSA, Trieste, Italy
- 30/01/17 Seminar for the *GdT Calcul des Variations* - University of Paris-Dauphine
- 21/07/16 7th European Congress of Mathematics, Berlin, Germany - Mini Symposium 16
- 04/07/16 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando (FL), USA - Special Session 68
- 20/01/16 XXVI Congresso Nazionale di Calcolo delle Variazioni, Levico Terme (TN), Italy
- 26/10/15 Analysis Junior Seminars, SISSA, Trieste, Italy
- 03/09/15 Mathematical Colloquium, University of Bari, Italy

## PARTICIPATION TO CONGRESSES/SCHOOLS (besides invited talk events, main ones)

- 15-16/06/17 Workshop for G. Francfort's 60th birthday *From Solid Mechanics to Mathematical Analysis*, IHP Paris
- 2014-2017 Italian Congress on Calculus of Variations, *Convegno Nazionale di Calcolo delle Variazioni*, Levico Terme, (TN), Italy (Every year for one week in February, 4 editions)
- 2015-2017 Summer schools at University *La Sapienza*, Rome, organised by A. Garroni (Every year for one week in June, 3 editions)
- 25-28/10/16 Workshop *Geometric Measure Theory, Shape Optimisation, and Free Boundaries*, SISSA, Trieste
- 19-23/09/16 Conference *A Mathematical Tribute to Ennio De Giorgi* on the occasion of the vigintennial of Ennio De Giorgi's departure, SNS, Pisa
- 02-05/15 Intensive Trimester *Variational Models for Plasticity and Dislocations*, SISSA, Trieste
- 10-14/02/14 Winter school on Calculus of Variations in Physics and Materials Science, Würzburg, Germany

## RESEARCH VISITS

- 25-28/09/17 University of Brescia, Italy, invited by Prof. R. Rossi
- 06-10/03/17 University *La Sapienza* of Rome, Italy, invited by Prof. A. Garroni and Dr. R. Alessi

## PARTICIPATION TO RESEARCH PROJECTS AND OTHER FUNDING

- Project *Calculus of Variations* 2010-11, supported by the Italian Ministry of Education, University, and Research, coordinator Prof. G. Dal Maso
- Membership and funding from the GNAMPA-*Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le loro Applicazioni* of the INdAM-*Istituto Nazionale di Alta Matematica*
- INdAM-GNAMPA Project 2016 *Multiscale analysis of complex systems with variational methods*, 8 persons, coordinator Dr. G. Lazzaroni

## TEACHING ACTIVITY

- 09/17-01/18 Teaching assistant (TD) of the course *Mathématiques et Calcul*, Université Paris 5 Descartes (72h, French)
- 09-10/17 Tutor of the course *Linear Algebra and Optimisation*, BSc in Mathematics, École Polytechnique (12h, English)
- 2014 Courses in the high school Liceo Classico Dante, Trieste, in preparation to the Italian Olympic Games of Math. Courses organized by Università of Trieste

## EDITORIAL ACTIVITY

- Referee reviewer for Math. Models Methods Appl. Sci. (M3AS)
- Reviewer for Mathematical Reviews/MathSciNet

## OTHER

*Qualification aux fonctions de Maître de Conférences* – Qualification for Assistant Professor in France, 2016

## LANGUAGE SKILLS

Italian Native speaker

English Fluent, Certification *Cambridge English: Advanced (CAE)* University of Cambridge ESOL, 2012, CEFR level: C1

French Fluent

German Elementary

## OTHER SKILLS

Informatics Unix/Linux, Mac OS,  $\text{\LaTeX}$ , Windows, Office, HTML

Programming Matlab, Java, Python, C