

RESUME

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PERSONAL INFORMATION

Name	ALBERTO DAMIANO
Date of birth	DECEMBER , 4 TH 1978
Current Academic/Business Address	MATEMATICKÝ ÚSTAV UNIVERZITY KARLOVY, SOKOLOVSKÁ 83 , PRAHA 8, 186 75 (CZ)
Italian Phone Number	(+39) 349.838.6632
USA Phone Number	(+1) 202.470.6350
Czech Phone Number	(+420) 720.415.443
E-mail	alberto@tlc185.com
Immigration Status	Country of citizenship : Italy, EU ;

EDUCATION

- | | |
|----------------------------------|---|
| • GRADUATE | George Mason University, Fairfax VA, USA; 2002-2005 |
| • Title of qualification pursued | Ph.D. In Computational Mathematics until 2004, Ph.D. in Mathematics from 2004 |
| • Principal subjects | Differential Equations, Scientific Databases, Statistical and Scientific Visualization, Computational Sciences, Numerical Analysis, Numerical Linear Algebra. |
| • Dissertation title | Computational Approach to some Problems in Algebraic Analysis |
| • Dissertation director | Daniele C. Struppa, George Mason University |
| • UNDERGRADUATE | University of Genova, Italy , 1997 – 2001 |
| • Degree | Laurea in Matematica [Master in Mathematics] |
| • Principal subjects | Geometry, Analysis, Algebra, Physics. |
| • Thesis title | Applicazioni dell'algebra computazionale allo studio di alcuni operatori differenziali |
| • Thesis director | Lorenzo Robbiano, University of Genova |
| • HIGH SCHOOL EDUCATION | Liceo Scientifico "G. Saccheri", Sanremo ; 1992 – 1997 |
| • Degree | Diploma di maturità scientifica [Scientific studies High School diploma] |

WORK EXPERIENCE

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|------------|---|
| • RESEARCH | Research Assistant for D.C. Struppa, George Mason University August 2002 – May 2005
Research postdoctoral fellow, Charles University, Prague, September 2005 – July 2007 |
| • TEACHING | Teaching Assistant for the department of mathematics, GMU August 2004 – May 2005 |

PUBLICATIONS

A. Damiano, V. Souček, in preparation

A. Damiano, D. Eelbode, in preparation

A. Damiano, to appear on Adv. Appl. Cliff. Alg. (2007)

F. Colombo, A. Damiano, I. Sabadini, D.C. Struppa, submitted

A. Damiano, M. Mannucci, L. Sparks, D.C. Struppa, preprint 2006

A. Damiano, to appear on Rend. Circ. Mat. Palermo 2007

F. Colombo, A. Damiano, I. Sabadini, D.C. Struppa, to appear in proceedings of the ISAAC 2005 conference

J. Bureš, A. Damiano, I. Sabadini, *J. Geom. Phys* 57 (2007), no. 3, 765--775

A. Damiano, I. Sabadini, D.C. Struppa, to appear on *Exp. Math.* (2006)

F. Colombo, A. Damiano, *Houston J. of Math.* 32 (2006), 895--920

A. Damiano, I. Sabadini, D.C. Struppa. *Complex Var. Elliptic Equ.* 51 (2006), no. 5-6, 497--510.

F. Colombo, A. Damiano, I. Sabadini, D.C. Struppa, *Complex Var. Theory Appl.* 50 (2005), no. 6, 389--400

L. Kershberg, A. Damiano, S. Mitchell, S. Smith, M. Chowdry, H. Jeong. SSDBM 2004, Santorini (Greece), *Proceedings*.

S. A. Mitchell, S. Smith, A. Damiano, J. Durgavich, R. MacCracken. *Proceedings of the SAE Motorsports Conference 2004* (Dearborn, MI)

- Construction of a Dolbeault complex for the multivariable Dirac operator using symmetries

- Hermitian generalization of the Rarita-Schwinger operators

- Syzygies of multi-variable higher spin operators in \mathbb{R}^3

- Quaternionic hyperfunctions on 5-dimensional varieties in \mathbb{H}^2

- A combinatorial point of view on social structures and human aggregation

- Algebraic analysis of the Rarita-Schwinger operator in dimension three

- A new Dolbeault complex in quaternionic and Clifford analysis

- Explicit resolution for the complex of several Fueter operators

- Computational methods for the construction of a class of noetherian operators

- Identification of the memory kernel and the heat source for a phase-field model

- New algebraic properties of biregular functions in $2n$ quaternionic variables

- A surjectivity theorem for differential operators on spaces of regular functions

- Knowledge Sifter, an ontology driven system search for heterogeneous databases

- Use of genetic algorithms with multiple metrics aimed at the optimization of automotive suspension systems

CONTRIBUTIONS TO COMPUTER ALGEBRA

CoCoA package for the computation of the Ext modules, and Depth

CoCoA package for the applications of commutative algebra to the algebraic analysis of linear constant coefficient partial differential equations.

CoAlA, a web resource for the algebraic analysis of linear constant coefficient systems of partial differential equations, available at <http://www.tlc185.com/coala>

TECHNICAL SKILLS AND COMPETENCES

Main operative systems: Windows, Linux, Mac Os. Common Office applications. Professional typing and publication software: LaTeX, Publisher, Acrobat. Programming languages: Basic, Pascal, some Fortran 77 and 90, some C and C++. Computer Algebra: CoCoA, Singular, Maple

TEACHING

- 1999 through 2003
- Fall Semester 2004
- Spring Semester 2005
- Fall Semester 2006

Private tutor of mathematics for high school and undergraduate students.
Calculus I and Analytic Geometry at George Mason University.
Calculus I and Analytic Geometry at George Mason University.
Student seminar "Variations on Invariance", Charles University, Prague

CONFERENCES AND SEMINARS

- April 2003 East Coast Computer Algebra Day, Clemson University NC – Poster presentation
- June 2003 CoCoA VIII international school and conference, Cadiz (Spain) – Poster presentation
- May 2004 GMU Conference in honor of Carlos Berenstein's Birthday – Speaker and organizer
- June 2004 SSDBM 2004, Santorini (Greece) – Poster presentation
- September 2004 Computer Algebra and Applications, school and conference, Torino (Italy) – Short talk
- November 2004 Mid Atlantic Algebra Conference 2004, GMU – Short talk
- November 2004 Algebra and Combinatorics seminar, GMU – Speaker
- May 2005 CoCoA IX international school, Sardinia (Italy) – Poster presentation
- May/June 2005 MEGA, effective methods in algebraic geometry conference, Sardinia (Italy) – Short talk
- July 2005 ISAAC 2005 – section on Dirac operators and applications, Catania (Italy) – Short talk
- October 2005 Differential Geometry Seminar, Math. dep. of Charles Univ., Prague (Czech Rep.) – Speaker
- November 2005 Eduard Čech Center meeting in Telč (Czech republic) – Short talk
- January 2006 Winter School Geometry and Physics, Srní (Czech Rep.) – Short talk
- March 2006 Visiting Milan "Politecnico" (Italy), invited by I. Sabadini
- May 2006 Visiting Milan "Bicocca" (Italy), invited by F. Magri. – Talk at the mathematical physics seminar
- June 2006 Function Theory in Higher Dimensions, Tampere Univ. of Tech. (Finland) – Short talk
- July 2006 ISSAC 2006, University of Genova (Italy) – participant
- November 2006 Eduard Čech Center meeting in Telč (Czech republic) – Short talk
- January 2007 Winter School Geometry and Physics, Srní (Czech Rep.) – Speaker
- January 2007 Chapman University (Orange, CA, USA), mathematics seminar - Invited speaker

PRIVATE TUTORING

MATHEMATICS ENGLISH ITALIAN

6 years of experience tutoring high school students and undergraduates in math and physics
1 year experience in teaching English to Italian students
2 year experience on teaching Italian to foreigners in the US and in the Czech Republic

LANGUAGE SKILLS

MOTHER TONGUE

ITALIAN

OTHER LANGUAGES

- ENGLISH

FLUENT

- FRENCH

INTERMEDIATE LEVEL

- SPANISH

INTERMEDIATE LEVEL

- CZECH

BEGINNER

PERSONAL SKILLS AND COMPETENCES

SOCIAL SKILLS

Working in a team is essential for my research, which is based on both theoretical mathematics and applications and involves an extensive use of the computer. Studying, doing research and teaching are jobs that I like to deal with by cooperating and by discussing with other people rather than by myself. At the private level, I am family oriented and sociable.

ORGANIZATIONAL SKILLS

In every group I am involved in, be it a work group, voluntary work or a group of friends, I am an active part of the organization, being often a member of the leading team, although I prefer not take the main leadership. I love to challenge myself by proposing and organizing new events, discussions and meetings, keeping in touch with everybody as much as I can.

LEADERSHIP POSITIONS

- 2003-2004
- 2004-2005
- 2004-2006
- 2004-2005

GMU Pride Alliance: graduate student representative

GMU Pride Alliance: finance director

GMU Glt Graduate Students Association: founder and president

Phi Beta Delta, honor society for international scholars: member

AWARDS RECEIVED

- March 2003
- March 2004
- March 2005
- April 2004

GMU Vision Awards: recipient for academic excellence

GMU Vision Awards: recipient for academic excellence and leadership

GMU Vision Awards: recipient for academic excellence

Who's Who Among College Students: award recipient among graduate students

ARTISTIC SKILLS AND COMPETENCES

15 years of piano lessons, mainly classical music. Still enjoy playing piano as one of my favorite hobbies. Love to cook and prepare dinner for friends and family.