Curriculum Vitae of Roberto Paroni

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Biographical Information

Date of Birth: July 28, 1968
Citizenship: Italian
Married: 7 years
One daughter: age 6

Education

- Postdoctoral associate of the Center for Nonlinear Analysis in the Department of Mathematical Sciences of Carnegie Mellon University.
- Ph.D. in Mathematics, University of Kentucky, May 1998. Title of dissertation: "Homogenization of polycrystalline materials".
  Advisor: Prof. Chi-Sing Man
- M.A. in Mathematics, University of Kentucky, May 1995.
- Degree in Civil Engineering, University of Udine, July 1993. Grade: 110/110 with honors. Title of dissertation: "Onde di accelerazione e misura delle pretensioni in reti di funi" ("Acceleration waves and measurement of tensions in cable networks").
  Advisor: Prof. Cesare Davini

Fellowship Awards

- Academic year 1994-95. Received a fellowship from the University of Udine for graduate studies in the United States.

Research

- Publications
  - C.-S. Man and R. Paroni, On the separation of stress-induced and texture-induced birefringence in acoustoelasticity, *Journal of Elasticity* 45, 1996, 91–116.
  - C.-S. Man and R. Paroni, Explicit formulae showing the effects of texture on acoustoelastic coefficients, in *Review of Progress in QNDE, Vol. 16*, D.O. Thompson and D.E. Chimenti (eds.) Plenum, New York, 1997, 1683–1690.
  - R. Paroni, Stochastic homogenization of polycrystalline aggregates. *Research Report 97-07*, Department of Mathematics, University of Kentucky, 1997.
  - R. Paroni, Homogenization of polycrystalline aggregates, submitted to *Arch. Rational Mech. Anal.*
  - R. Paroni and C.-S. Man, Constitutive equations of elastic polycrystalline materials, submitted to *Arch. Rational Mech. Anal.*
  - R. Paroni and C.-S. Man, Micromechanical models in acoustoelasticity: a comparative study. In preparation.

  - R. Paroni, Optimal bounds on the texture coefficients. In preparation.
  - D. Owen and R. Paroni, Second order structured deformations. In preparation.
- Presentations
  - June 1999. " Micromechanical models in acoustoelasticity: a comparative study" at the Symposium on Advances in the Continuum Mechanics and Thermodynamics of Material Behavior. ASME Joint Applied Mechanics and Materials Conference at Virginia Polytechnic Institute and State University in Blacksburg, Virginia.
  - August - September 1997. "Linearly-elastic weakly-textured polycrystalline aggregates" at the International Summer School on Mathematical Methods in Material Science and Engineering. Centro Internacional de Matematica (CIM), Coimbra, Portugal.
  - June - July 1997. "Constitutive equations of polycrystalline materials" at McNU '97, The 1997 joint American Society of Mechanical Engineers (ASME), American Society of Civil Engineers (ASCE), Society of Engineering Science (SES), Summer Meeting, Northwestern University, Evanston, Illinois, U.S.A.
- Conference Participations
  - June 1999. I shall attend tha ASME Joint Applied Mechanics and Materials Conference at Virginia Polytechnic Institute and State University in Blacksburg, Virginia.
  - October 1998. Attended the Fortieth Meeting of the Society for Natural Philosophy: Internal and surface structure of materials, Carnegie Mellon University, Pittsburgh, Pennsylvania, U.S.A.
  - June 1998. Attended the Special IMA Workshop: Continuum Mechanics and Non-linear Partial Differential Equations, at Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, Minnesota, U.S.A.
  - August - September 1997. Attended the International Summer School on Mathematical Methods in Material Science and Engineering. Centro Internacional de Matematica (CIM), Coimbra, Portugal.
  - June - July 1997. Participated at McNU '97, The 1997 joint American Society of Mechanical Engineers (ASME), American Society of Civil Engineers (ASCE), Society of Engineering Science (SES), Summer Meeting, Northwestern University, Evanston, Illinois, U.S.A.
  - June 1996. Attended the ASME Mechanics and Materials conference, at The John Hopkins University, Baltimore, Maryland, U.S.A.
  - September 1995. Attended the IMA tutorial: Microstructure, weak convergence and atomic forces, at Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, Minnesota, U.S.A.
  - July 1995. Attended the summer school, The mechanics-materials linkage, organized by the Institute for Mechanics and Materials at Northwestern University, Evanston, Illinois, U.S.A.
  - June 1995. Participated at the CBMS conference: Nondestructive evaluation and inverse problems, at the University of Kentucky, Lexington, Kentucky, U.S.A.
  - March 1994. Attended the Workshop on basic phenomena in plasticity, at the Center for Nonlinear Analysis, Carnegie Mellon University, Pittsburgh, Pennsylvania, U.S.A.
- Research Experience
  - Fall 1998 - Spring 1999. Postoctoral Associate of the Center for Nonlinear Analysis of the Department of Mathematical Sciences at Carnegie Mellon University.
  - Spring 1998. Research assistant of Dr. C.-S. Man, at the University of Kentucky.

  - May - July 1997. Visitor at the University of Udine.
  - Spring 1995 - Spring 1996. Research assistant of Dr. C.-S. Man, at the University of Kentucky.
  - Fall 1993 - Spring 1994. Research assistant of Dr. C.-S. Man, at the University of Kentucky.

- Research Interests
  Interested in elasticity, continuum mechanics, acoustoelasticity, theory of homogenization and calculus of variations.

University Teaching

- Teaching Experience
  - Spring 1999. Instructor, Department of Mathematical Sciences, Carnegie Mellon University. Course I will teach: Calculus I
  - Fall 1997. Teaching Assistant, Department of Mathematics, University of Kentucky. Course taught: Ma114 Calculus II
  - Fall 1995. Teaching Assistant, Department of Mathematics, University of Kentucky. Course taught: Ma213 Calculus III

Computer Skills

- Have used Maple in my research.
- Have written codes in Pascal, Fortran and C.

Professional Affiliations

- American Mathematical Society (AMS)
- Gruppo Nazionale per la Fisica Matematica
- Society for Natural Philosophy

References

Prof. Chi-Sing Man, Ph.D. advisor	(606) 257-3849	mclxyh@ms.uky.edu
Prof. Ronald Gariepy,	(606) 257-6797	gariepy@ms.uky.edu
Prof. Tom Hayden,	(606) 257-6810	hayden@ms.uky.edu
Prof. Peter Hislop,	(606) 257-6794	hislop@ms.uky.edu
Prof. Henry Howard,	(606) 257-6812	henry@ms.uky.edu
Prof. Robert Molzon,	(606) 257-6821	molzon@ms.uky.edu
Prof. Irene Fonseca,	(412) 268-3615	fonseca@andrew.cmu.edu
Prof. David Owen,	(412) 268- 8481	do04@andrew.cmu.edu
Prof. Cesare Davini,	(39-432) 482312	cesare.davini@dic.uniud.it

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University of Kentucky
Lexington, Kentucky 40506-0027

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Prof. Cesare Davini may be reached at the following address:
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