Department of Mathematics and Statistics

McMaster University

1280 Main St W

Hamilton, ON L8S 4L8

Canada

Office: (905) 268–5584

Fax: (905) 522–0935

E-mail: `beni@cmu.edu`

Web: `http://www.math.cmu.edu/~bsousa`

Bernardo Galvão-Sousa

Research Interests

- Calculus of variations

- Dimension reduction

- Gamma convergence

- Image processing

- Partial differential equations

- Phase transitions

Professional Employment

- Post-doctoral Fellow   `Jul 2008 -- Present`
  Supervisors: Lia Bronsard and Stanley Alama
  McMaster University, Hamilton, ON, Canada

Education

- Ph.D. in Mathematical Sciences   Jun 2008
  Advisors: Irene Fonseca and Giovanni Leoni
  Carnegie Mellon University, Pittsburgh, PA, USA

- M.S. in Functional Analysis and Differential Equations   Jan 2003
  Advisor: Luís Trabucho
  Faculdade de Ciências, Universidade de Lisboa, Portugal

- B.S. in Pure Mathematics   Jul 2000
  Faculdade de Ciências, Universidade de Lisboa, Portugal

Honors and Awards

- Scholarship to study Ph.D. abroad, Fundação para a Ciência e Tecnologia, 2002–2006

- Scholarship to study M.S., Fundação para a Ciência e Tecnologia, 2000–2002

- Scholarship for undergraduate introduction to research, Fundação para a Ciência e Tecnologia, 1999–2000

Publications and Theses

- B. Galvão-Sousa, S. Levine, F. de la Torre, *Nonlinear total variation models for variable lighting face recognition*, work in progress

- B. Galvão-Sousa, V. Millot, *Phase Transitions for Thin Films*, work in progress

- B. Galvão-Sousa, *Higher-Order Phase Transitions with Line Tension Effect*, work in progress

- B. Galvão-Sousa, *Variational Methods for Phase Transitions*, Ph.D. Thesis, Carnegie Mellon Univ., 2008

- B. Galvão-Sousa, *Análise Numérica de uma Classe de Problemas em Optimização de Estruturas (Numerical Analysis of a Class of Problems in Structural Optimization)*, M.S. Thesis, Univ. de Lisboa, 2003

Talks and Lectures

- Seminar at McMaster University, Hamilton, ON March 25, 2008

- Contributed Talk at "SIAM Conference on Analysis of Partial Differential Equations" – Mesa, AZ

  December 12, 2007

- Seminar at Princeton University, Princeton, NJ October 12, 2007

- Seminar at Drexel University, Philadelphia, PA October 9, 2007

- Contributed Talk at "Summer School on Calculus of Variations and Applications" – I.S.T. – Ponta Delgada, Açores, Portugal September 8, 2006

- Contributed Talk at "SIAM Conference on Analysis of Partial Differential Equations" – Boston, MA

  July 11, 2006

Teaching Experience

- Instructor for Differential Equations for Engineering Fall 2008

- Teaching Assistant for Calculus in Three Dimensions Fall 2004, Spring 2007

- Teaching Assistant for Differential Equations Spring 2004

- Teaching Assistant for Calculus I for Humanities Fall 2003

- Teaching Assistant for Integration and Differential Equations Spring 2003

- Teaching Assistant for Differential Calculus Fall 2002

- Teaching Assistant for Calculus of Approximations Fall 2002

- Teaching Assistant for Analysis I and II and Linear Algebra Fall 2000 -- Spring 2002

Extracurricular Activities

- Founder and President of the Carnegie Mellon University Tennis People Club `May 2006 -- April 2008`

Languages

- Native: Portuguese

- Fluent: English, Spanish

- Average: Italian, French

- Basic: Russian

References

- Available upon request