

Professor GIUSEPPE ROMANAZZI
Curriculum Vitae

Personal Details

Name: Giuseppe Romanazzi
Email address: roman@ime.unicamp.br

Research Interest

Multiscale Modelling, Numerical Analysis, Parallel Computing,
Computational Mechanics, Biomathematics

Position

Professor Doutor MS 3.1, (Assistant Professor)
Area: Numerical Analysis, Mathematics
Institution: IMECC-UNICAMP,
Instituto de Matemática Estatística e Computação Científica,
Universidade Estadual de Campinas, Campinas, Brazil

Past Research Positions

08 Aug 2014 - 23 Abr 2016	Centro de Matemática da Universidade de Coimbra, Coimbra, Portugal	Position: Investigador Auxiliar Convitado (Ricercatore Assistente Invitato)
1 Oct 2008 - 30 Sept 2013	Centro de Matemática da Universidade de Coimbra, Coimbra, Portugal	Position: Investigador Auxiliar (Ciência 2007) (Ricercatore Invitato)
01 Dec 2005 - 30 Sept 2008	School of Computing, University of Leeds, Leeds, United Kingdom	Position: Research Fellow

Education

Jan 2003 - Jun 2006	PhD in Mathematics Università degli Studi di Bari (Italy), Southern Methodist University (USA)	Thesis title: Numerical Solution of Bordered Almost Block Diagonal Linear Systems arising from BVPs
Oct 2001 - Oct 2002	Master 1st Level in Quantitative Methods and Informatics to support economic decisions, 22/10/2002 Università degli Studi di Bari, ISSIA-CNR, Centre for National Research (Italy)	Thesis title: Surface Reconstruction
Oct 1995 - Mar 2001	Degree in Mathematics (Laurea) 15/03/2001 Università degli Studi di Bari	Thesis title: Numerical Integration

Bibliographic data

ORCID ID 0000-0002-4486-7840,
Scopus Author ID 55910051900
ResearcherID C-3092-2014
AMS, MR Author ID : 795725
Zembral Math, Authod-ID : romanazzi.giuseppe

Scopus h-index = 8
(20 publications, 128 citations by 110 articles)

Clarivate Analytics Web of Knowledge ResearcherID h-index=7
(30 publications, 96 citations by 85 articles)

ZembralMath h-index=4
(14 publications, 44 citations by 37 articles)

AMS-MathSciNET h-index= 3 (14 publications, 30 citations by 25 articles)

Teaching

Graduate Courses

Academical Years

2017, 2020 (Two semesters); 2018, 2019, 2021, 2022 (2nd semester);

Lecturer of the Courses:

MS211 - "Cálculo Numérico" (Numerical Methods) for undergraduate students of the Faculties of Engineering and Sciences State University of Campinas (UNICAMP), Brazil

2019, 2023 (1st Semester)

Matemática Aplicada para Biologia (MS380)
for undergraduate students of Biology and Medicine,
State University of Campinas (UNICAMP), Brazil

2021, 2022 (1st semester)

Geometria Analítica (MA141)
for undergraduate students (Engineering, Mathematics, Physics, Estatistics)
Universidade Estadual de Campinas, Brazil

Academical Years 2010/2011 & 2012/2013

Lecturer of the Course "Métodos de Programação I" (Programming Course)
for under-graduate students in Mathematics
University of Coimbra, Portugal

Academical Year 2007/2008

Assistant Lecturer of the Course "SC33 Scientific Computation"
for under-graduate students in Computing
Principal Lecturer: Dr. Mark A. Walkley
University of Leeds, UK

Academical Year 2004/2005

Assistant Lecturer
Laboratorio di programmazione e calcolo
(Programming and Numerical Mathematics Course)
for under-graduate students in Chemistry,
Principal Lecturer: Prof. Pierluigi Amodio
University of Bari, Italy

Postgraduate Courses

Academical Year 2017,2020,2023 1st Semester

Lecturer of the Course "Métodos de Elementos Finitos" (Finite Elements Methods) for postgraduate students in Mathematics
State University of Campinas (UNICAMP), Brazil

Academical Year 2016,2019,2022, 2nd semester

Lecturer of the Course "Análise Numérica I" (Numerical Analysis)
for postgraduate students in Mathematics
State University of Campinas (UNICAMP), Brazil

2017,2021 (2nd semester), 2018 (1st semester)

MT804 "Tópicos em Análise Numérica"
(Análise Numérica de Problemas Biológicos Elípticos-Parabólicos)
for postgraduate students (Engineering, Mathematics, Physics, Statistics)
Universidade Estadual de Campinas, Brazil

Student Supervision

PhD Supervision (concluded)

1. Júlia Silva Silveira Borges. **Numerical Modelling and Analysis of Drug Release from Viscoelastic Polymers**. (Modelagem Numérica e Análise da Dispersão de Medicamentos em Polímeros Viscoelásticos).. Thesis (PhD in Applied Mathematics) - Universidade Estadual de Campinas, PhD Defense 06-12-2019.
2. Geovan Carlos Mendonça Campos. **Heterogeneous Multiscale Methods for Simulating the Formation of Colorectal Cancer**. Thesis (PhD in Applied Mathematics) - Universidade Estadual de Campinas. PhD Defense 18-01-2021.

Phd Supervision (ongoing)

1. Edmilson Paulo de Oliveira. **Numerical Modelling and Simulations of the Deformation of Viscoelastic Crypts.** (PhD in Applied Mathematics) - Universidade Estadual de Campinas. (Modelagem Numérica e Simulações da Deformação de Criptas Viscoelásticas)

2. Daniela Cortes Ospina

Drug Release and Reaction in the Colon Epithelium during the formation of a cancer
(PhD in Applied Mathematics) - Universidade Estadual de Campinas

3. Marcos Alexandre Rabelo de Lima

Deformations in Colorectal Cancer

(PhD in Applied Mathematics) - Universidade Estadual de Campinas

Master Supervision (ongoing)

1. Ítalo José Lima de Sousa

Modelos Celulares nas criptas do cólon: implementação numérica, simulação e comparação.
Universidade Estadual de Campinas

2. José Adson Reis Santos

Rompimento em Barragens de Aterro: uma nova metodologia matemática e numérica. Universidade Estadual de Campinas

Undergraduate Supervision (Scientific Orientation for second year student) (Concluded)

1. Wilhelm Klava Klein de Abreu. **Modelagem matemática e simulações numéricas das propriedades de viscoelasticidade do epitélio e dos adenomas nas primeiras fases da formação do câncer colorretal.** 2016. Iniciação científica (Engenharia Mecânica) - Universidade Estadual de Campinas,

Undergraduate Student Supervision (ongoing from September 2016)

Program of Scientific Introduction and Master Studies (PICME)

<http://picme.obmep.org.br/index/sobre>

Project (in English): "Modeling and Numerical Simulations of the viscoelastic properties of the colon epithelium and of the adenomas in the firsts stages of the formation of the colorectal cancer"

Academical Jury

Professor Position

11-14 Abril 2022

Professor Adjunto in Applied Mathematics

Department of Mathematics, Federal University of Paraná

PhD Defense in Department of Applied Mathematics of the State University of Campinas

11/05/2023

"Modelos de Campo de Fase e Derivadas Fracionárias para Dano em Materiais Viscoelásticos"

Thais Clara da Costa Haveroth

07/10/2022

"Modelagem matemática da interação Tumor-Hospedeiro-Imunidade abordando heterogeneidade e mecanismos de evasão" Matemática Aplicada, Unicamp

Luis Pedro Lombardi Junior

23/07/2021

Department of Applied Mathematics of the State University of Campinas

"A multidimensional semi-discrete Lagrangian-Eulerian scheme for scalar and systems of hyperbolic conservation laws with a positivity principle"

Jean Renel François

18/01/2021

"Análise numérica de métodos multiescala para problemas elípticos-parabólicos com aplicação na dinâmica celular durante a formação do câncer colorretal"

"Numerical analysis of multiscale methods for elliptic-parabolic problems with application in the cell dynamics during the formation of colorectal cancer"

Geovan Carlos Mendonça Campos

28/02/2020

"Phase field models for problems involving fracture, plasticity and finite strains"

"Modelos de campos de fase para problemas envolvendo fratura, plasticidade e grandes deformações"

Geovane Augusto Haveroth

06/12/2019

"Numerical Modelling and Analysis of Drug Release from Viscoelastic Polymers" Julia Silva Silveira Borges

25/07/2019

"A Novel Recursive Formulation of Multiscale Mixed Methods and Relaxation Modeling of Flow in Porous Media", Paola Cunha Ferraz

18/07/2018

"Numerical modeling of the two-phase flow in porous media with dynamic capillary pressure", Jardel Vieira

15/12/2017

"Espaços Hierárquicos para uma Formulação de Elementos Finitos Mista Estabilizada do Problema de Darcy", Juan Carlos Rodriguez Miranda

02/12/2016

"Métodos de Elementos Finitos Mistos-Híbridos para um Problema Elíptico Não Linear em Malhas Quadrilaterais", Margui Angélica Romero Pinedo

Academical Commission

June 2020

Member of the Academical Jury for the 2019 Best Master Thesis in Applied Mathematics

of the Department of Applied Mathematics of the IMECC-UNICAMP,
June 2020.

Post-Doctoral Academical Jury

- Post-Doctoral Fellowship, Funding Project UTAUSTIN/MAT/0009/2008 open call in the period 15/06/2009 - 15/08/2009
- Post-Doctoral Fellowship, Funding Project UTAUSTIN/MAT/0009/2008 open call in the period 20/02/2012 - 16/03/2012

Research Projects

Research Projects (PI)

"Modelagem, análise numérica e simulação computacional do crescimento de adenomas no cólon durante a absorção de fármacos liberados de polímeros" founded for two years 2022- 2024 by FAPESP (Fundação de Amparo do Estado de São Paulo) Process 2021/14713-5

"Multiscale Viscoelastic Modeling and Numerical Simulation of the firsts steps of the formation of Colorectal Cancer" accepted to be founded for two years 2017- 2019 by FAPESP, (São Paulo Research Foundation) Process 2017/05519-5,

Research Projects(collaborator)

- "Numerical Modelling and Simulation of the formation of Colorectal Cancer" Funded by European Funding for the Regional Development, FSE 2007-2013 Decree n.460 30/09/2014 of the Entity for Industrial Research and Innovation of Region Puglia (Italy)
- "Advances in Image Processing and Inverse Problems: Applications in Medical and Earth Observation Imagery, and Biomathematics", PTDC/MAT-NAN/0593/2012, supported by FCT, Period: July 2013 - June 2015, PI: Prof. Isabel Figueiredo, Universidade de Coimbra (UC)
- "Reaction-Diffusion in Porous Medium", UTAustin/MAT/0066/2008, supported by FCT, Period: July 2009 - June 2013, PI: Prof. José Augusto Ferreira (UC)
- "Aberrant Crypt Foci and Human Colorectal Polyps: mathematical modelling and endoscopic image processing", UTAustin/MAT/0009/2008 supported by FCT, Period: July 2009 - June 2013, PI: Prof. Isabel Figueiredo (UC)
- "Self Adapting Software for Grid based Numerical Simulation", supported by Engineering and Physical Sciences Research Council (EPSRC), grant EP/C010027/1, Period: Dec 2005- Nov 2008, PI: Prof. Peter Jimack, University of Leeds, UK

Scientific Production

SOFTWARE

- File: 859.zip,
Software for "BABDCR--a Fortran 90 package for the solution of bordered ABD linear systems" published in **ACM Transactions on Mathematical Software**, vol. 32, pp. 597-608. 2006,
available at <http://dl.acm.org/citation.cfm?id=1186791>
 - File: GBABDCR.tar.gz
"Numerical solution of general bordered ABD linear systems by cyclic reduction" available at <http://www.mat.uc.pt/~roman/babrcr>
-

PUBLISHED ARTICLES

30.

G. Romanazzi, G. Settanni

Fission and Deformations in the Colon Epithelium using Finite Element Methods,

Proceedings of the Ibero-Latin-American Congress on Computational Methods in Engineering, ISSN 2675-6269. CILAMCE 2022

29. D. C. Ospina, G. Romanazzi

Modeling and Numerical Simulation of Drug Transport and Absorption in a Tumor,

Proceedings of the Ibero-Latin-American Congress on Computational Methods in Engineering, ISSN 2675-6269, CILAMCE 2022

28. G Romanazzi, G Settanni. Mathematical model for simulation of morphological changes associated to crypt fission in the colon.

Discrete and Continuous Dynamical Systems - S, 2022, 15(12): 3781-3805. ISSN 1937-1632, doi: 10.3934/dcdss.2022055

27. G.C.M. Campos, J.A. Ferreira, G. Romanazzi,

Density-pressure IBVP: numerical analysis, simulation and cell dynamics in a colonic crypt, **Applied Mathematics and Computation**, 424 (2022) 127037.

<https://doi.org/10.1016/j.amc.2022.127037>

26. E. P. OLIVEIRA, G. ROMANAZZI,

Modeling and Computer Simulation of Viscoelastic Crypt Deformation,

Trends in Computational and Applied Mathematics, 23, N. 1 (2022), 193-211
Sociedade Brasileira de Matemática Aplicada e Computacional

Online version ISSN 2676-0029

10.5540/tcam.2022.023.01.00193

25. J.S. Borges , J.A. Ferreira, G. Romanazzi, E. Abreu, Drug release from viscoelastic polymeric matrices - a stable and supraconvergent FDM" (2019)
Computer & Mathematics with Applications,
Volume 99, 1 October 2021, Pages 257-269
24. Edmilson P. Oliveira, Giuseppe Romanazzi, Modelagem e Simulação Computacional da Deformação de Criptas Viscoelásticas, n. 70, pages 8, 2020.**Anais do X Encontro Regional de Matemática Aplicada e Computacional do Rio Grande do Sul - ERMAC-RS** ISBN: 978-65-5623-103-7 | <http://editora.pucrs.br>
23. Figueiredo IN, Leal C., Romanazzi G., Engquist B.. Biomathematical Model for Simulating Abnormal Orifice Patterns in Colonic Crypts, **Mathematical Biosciences**, 315 (2019) 108221, 2019
<https://doi.org/10.1016/j.mbs.2019.108221>
22. Análise Numérica da Liberação e Absorção de Fármacos em Polímeros Visco-Elásticos, Júlia Silva Silveira Borges, Giuseppe Romanazzi, **Proceeding Series of the Brazilian Society of Computational and Applied Mathematics**, Volume 6, Number 2, 010026-1, CNMAC 2018, 2018
21. Ferreira JA, Grassi M, Oliveira P, Romanazzi G, Drug Release from viscoelastic swelling polymeric platforms,
SIAM J. Appl. Math., 78, 3, pp. 1378--1401, 2018,
DOI: doi.org/10.1137/16M1100344, available online 14/05/2018
20. Antunes do Carmo J.S., Ferreira J.A., Pinto L., Romanazzi G., An Improved Serre Model: Efficient Simulation and Comparative Evaluation, **Applied Mathematical Modelling**, Volume 56, April 2018, Pages 404–423, available online 9/12/2017, DOI: doi.org/10.1016/j.apm.2017.12.005
19. Figueiredo I.N., Leal C., Romanazzi G., Engquist B., Homogenization Model for Aberrant Crypt Foci, **SIAM J. Appl. Math.**, 76-3, pp. 1152-1177, DOI: [10.1137/140967660](https://doi.org/10.1137/140967660), 2016
18. Ferreira JA, Pena G., Romanazzi G., Anomalous Diffusion in Porous Media, **Applied Mathematical Modelling**, 40, 3, pp. 1850–1862, 2016
17. Figueiredo I.N., Romanazzi G., Leal C., "Modeling and Simulating Colonic Cell Renewal Disruption", **Proceedings of the 14th International Conference on Computational and Mathematical Methods in Science and Engineering**, CMMSE 2014, 2014, ISBN 978-84-616-9216-3, ISSN 2312-0177
16. Romanazzi G., Figueiredo I.N., Leal C., "A Numerical Simulation for Aberrant Crypt Foci", Proceedings of the 10th World Congress on Computational Mechanics, **Blucher Mechanical Engineering Proceedings**, v. 1, n. 1, p. 1271-1282, São Paulo: Blucher, 2014. ISSN 2358-0828

15. Figueiredo I.N., Romanazzi G., Leal C., Engquist B., "A multiscale model for Aberrant Crypt Foci", **Procedia Computer Science**, 18, 1026 - 1035, ICCS 2013, 2013
14. Ferreira J.A., Pinto L., Romanazzi G., "Supraconvergence and supercloseness in Volterra equations", **Applied Numerical Mathematics**, 62, pp. 1718-1739, 2012
13. Figueiredo I.N, Leal C, Romanazzi G, Engquist B, Figueiredo P, "A convection-diffusion-shape model for aberrant colonic crypt morphogenesis", **Computing and Visualization in Science**, 14, 4, pp. 157-166, 2011
12. Romanazzi, G., Jimack, P.K., Goodyer, C.E., "Reliable Performance Prediction for Multigrid Software on Distributed Memory Systems" **Advances in Engineering Software**, Vol. 42, Issue 5, pp. 247-258, 2011
11. Figueiredo I.N., Leal C., Leonori T, Romanazzi G., Figueiredo P. N., Donato M. M., "A coupled convection-diffusion level set model for tracking epithelial cells in colonic crypts", **Procedia Computer Science**, 1, 1, pp. 955-963, ICCS 2010, 2010
10. Amodio P., Romanazzi G., "Parallel Numerical Solution of ABD and BABB linear systems arising from BVPs", **Scalable Computing Practice and Experience**, Volume 10, 4, pp. 373-383, 2009
9. Romanazzi, G., Jimack, P.K., "Performance prediction for multigrid codes implemented with different parallel strategies", **Proceedings of the First International Conference on Parallel, Distributed and Grid Computing for Engineering**, Paper 43, 2009
8. Romanazzi, G., Jimack P.K., "Parallel Performance Prediction for Numerical Codes in a Multi-Cluster Environment", **Proceedings of the 2008 International Multiconference on Computer Science and Information Technology**, (IMCSIT'08), PTI Press, pp. 467-474, 2008
7. Romanazzi, G., Jimack, P.K., and Goodyer, C.E., "Reliable performance prediction for parallel scientific software in a multi-cluster grid environment", **Proceedings of the Sixth International Conference on Engineering Computational Technology**, Civil-Comp Press, Paper 4, 2008
6. Romanazzi, G.; Jimack P.K., "Parallel performance prediction for multigrid codes on distributed memory architectures", **Lectures Notes in Computer Science**, vol. 4782, HPCC-07, pp. 647--658 Springer. 2007
5. Romanazzi, G.; Jimack, P.K., "Performance prediction for parallel numerical software on the White Rose Grid". **Proceedings of the UK e-Science All Hands Meeting 2007**, pp. 517-524, NeSC, 2007
4. Amodio, P.; Gladwell, I.; Romanazzi, G., "An algorithm for the solution of bordered ABD linear systems arising from boundary value problems". **Proceedings of Multibody Dynamics 2007**, ECCOMAS Thematic Conference. 2007

3. Amodio, P.; Gladwell, I.; Romanazzi, G., "Numerical solution of general bordered ABD linear systems by cyclic reduction". **Journal of Numerical Analysis, Industrial and Applied Mathematics**, vol. 1, pp. 5-12. 2006
2. Amodio, P.; Romanazzi, G., "Algorithm 859: BABDCR: a Fortran 90 package for the solution of bordered ABD linear systems", **ACM Transactions on Mathematical Software**, vol. 32, pp. 597-608. 2006
1. Amodio, P., Gladwell, I., and Romanazzi, G., "On the solution of general Bordered ABD linear systems", **ICNAAM 2005 Proceedings**, pp.658-661, 2005

Abstracts in Conference Proceedings

19.
Numerical Modeling and Analysis of
Abnormal Cell Dynamics in Viscoelastic Colonic Crypts
Encontro Conjunto Brasil-Portugal em Matemática (ECBPM)
Simposio "BioMedicina e Dinâmica de Fluidos"
UFBA, Salvador, 14-20/08/2022
18.
ID 9977 - MATHEMATICAL MODELING AND COMPUTER SIMULATION OF VISCOELASTIC
CRYPT
DEFORMATIONS IN THE COLON
MS: Mathematical Modeling and Numerical Simulation in Life Sciences.
Authors: Edmilson Paulo de Oliveira; Giuseppe Romanazzi
CILAMCE- PANACM 2021
17.
ID 9933 - NUMERICAL MODELING OF DRUG RELEASE FROM VISCOELASTIC POLYMERS
MS: Mathematical Modeling and Numerical Simulation in Life Sciences.
Authors: Júlia Silva Silveira Borges, Giuseppe
Romanazzi
CILAMCE- PANACM 2021
16.
ID 9761 - NUMERICAL ANALYSIS FOR ELLIPTIC-PARABOLIC PROBLEMS APPLIED IN THE
CELL DYNAMICS DURING THE FORMATION OF COLORECTAL CANCER
MS: Mathematical Modeling and Numerical Simulation in Life Sciences.
Authors: Geovan Carlos Mendonça Campos; Giuseppe Romanazzi; José Augusto
Ferreira
CILAMCE- PANACM 2021
15.
ID 9676 - MODELING THE CRYPT FISSION AND DEFORMATIONS IN THE COLON TISSUE
MS: Mathematical Modeling and Numerical Simulation in Life Sciences.
Authors: Giuseppe Romanazzi
CILAMCE- PANACM 2021

14.

Modelagem numérica da fissão das criptas e das deformações viscoelásticas dos adenomas no epitélio do cólon

Author: Giuseppe Romanazzi

Congress: 3º Encontro de Biomatemática do IMECC/UNICAMP

Volume: Boletim Digital do 3º Encontro de Biomatemática do IMECC/UNICAMP

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Campinas 10-13/02/2020

13.

Numerical modelling of crypt fission and viscoelastic deformations in the colon epithelium

Authors: Romanazzi Giuseppe, Settanni G, Figueiredo Isabel, Leal C

Congress: 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019)

Volume: Book of Abstracts of ICIAM 2019

Valencia, Julho 15-19, 2019, Espanha

12

Modelagem numérica da fissão das criptas e das deformações viscoelásticas dos adenomas no epitélio do cólon

Autor: Giuseppe Romanazzi

Congress: 3º Encontro de Biomatemática do IMECC/UNICAMP

Volume: Boletim Digital do 3º Encontro de Biomatemática do IMECC/UNICAMP

Pagina 25

Campinas 10-13/02/2020

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Titulo: Numerical modelling of crypt fission and viscoelastic deformations in the colon epithelium

Autores: Romanazzi Giuseppe, Settanni G, Figueiredo Isabel, Leal C

Congress: 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019)

Volume: Book of Abstracts of ICIAM 2019

Cidade e datas: Valencia, Julho 15-19, 2019, Espanha

10.

Modelling and Numerical Analysis of Cancer Cell Dynamics in the Colon

Autores: Geovan Carlos Mendonça Campos, José Augusto Ferreira and Giuseppe Romanazzi

Congresso: 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019)

Volume: Book of Abstracts of ICIAM 2019

Cidade e datas: Valencia, Julho 15-19, 2019, Espanha

9. Campos G.C., Romanazzi G. , Ferreira J.A.,
Numerical Analysis of a Multiscale Finite
Element Method for Approximating the

Cancer Cell Proliferation in the Colon
Book of Abstracts,
Workshop on Computational Modeling and Numerical Analysis (WCMNA)
February 25-28, 2019, Petrópolis, Brazil

8. Campos G.C., Romanazzi G.,
Modelo Multiescala e Homogenização da proliferação de células
anormais no cólon, pag. 51-52, Boletim Digital,
XIII Encontro Científico dos Pós-Graduandos do IMECC
15 a 18 de outubro de 2018 - IMECC - UNICAMP

7. Figueiredo I.N., Leal C., Romanazzi G.,
Figueiredo P.N., Engquist B.,
Space-Time Model for the Understanding of Aberrant Crypt Foci Morphogenesis
ECMTB 2018, 11th European Conference on Mathematical and Theoretical
Biology, Book of Abstracts, page 321-322, Lisbon, July 23 - 27, 2018

6. Figueiredo I.N., Leal C., Romanazzi G.,
Figueiredo P.N., Engquist B.,
Biomechanical Model for the Simulation of Colonic Pit Patterns,
UTAustin | Portugal Workshop on Modeling and Simulations of Cardiovascular
Diseases and Cancer, pp. 71-72, November 13-15, 2017, Lisbon Academy of
Sciences, Portugal

5. G. Romanazzi, Modelos Multiescala e Homogeneizado das primeiras fases
de Carcinogênese no Colon (abstract) (Caderno de Resumos)
pag. 70, IMECC, Universidade Estadual de Campinas (Brazil)
II Congresso Brasileiro de Jovens Pesquisadores em Matemática Pura e
Aplicada, IMECC/Unicamp, Campinas 05-07 December 2016

4. Romanazzi G., Figueiredo I.N., Leal C., Multiscale and Homogenization
Models for the Aberrant Crypt Foci, The first Joint Meeting Brazil - Italy
in Mathematics, Books of Abstracts, 29 August 2 September 2016, pp. 112-
113, 2016

3. Ferreira JA, Grassi M, Oliveira P, Romanazzi G, Drug Release from
viscoelastic polymeric platforms, 19th European Conference on Mathematics
for Industry: book of Abstracts, pag.317, June, 13-17, 2016, Santiago de
Compostela (Spain). DOI:dx.doi.org/10.15304/cc.2016.968

2. G. Romanazzi, I.N. Figueiredo, C. Leal
Abstract: Multiscale Methods for Aberrant Crypt Foci evolution
UTAustin | Portugal Workshop on Modeling and Simulation of Physiological
Systems, Lisbon, Portugal, 6--8/12/2012

1. Figueiredo I.N., Leal C., Romanazzi G, Three Dimensional Colonic Crypt
Model, Proceedings of the Congresso de Métodos Numericos em Engenharia,
Resumo nº 90, pag. 87, ISBN 978-989-99410-0-7, 2015

Organizer of Conferences and Workshops

ENUMATH

European Conference on Numerical Mathematics and Advanced Applications
Symposium: Diseases, diagnosis, treatment: mathematical
modeling and numerical analysis
4-8 September 2023, Lisboa

Encontro Conjunto Brasil - Portugal em Matemática
ECBP 2022 - 14-20 Agosto 2022, Salvador, Brazil
Symposium: BioMedicina e Dinâmica de Fluidos- Modelação Matemática e
Análise Numérica

ICIAM 2019

July 15-19, 2019
Mini-symposium "Simulation and Modelling in Medicine and Biology"
International Congress on Industrial and Applied Mathematics, Valencia
(Spain), July 15-19, 2019
(<https://iciam2019.org/>)

WANA 2019

13 March 2019
Workshop on Numerical Analysis and Applications, WANA, IMECC-UNICAMP,

CNMAC 2018

17-21 September 2018
MiniSimposio in CNMAC 2018 ,IMECC-UNICAMP
MS1: Análise Numérica para Modelos Diferenciais: Teoria, Métodos e
Aplicações

**Speaker in more than 35 International
Conferences**

Reviewer of Scientific Journals

Springer Journal:
Journal of Mathematics in Industry;
Computational and Applied Mathematics

Elsevier Journal: Computers and Mathematics with Applications,

Member of the Editorial Board

CNMAC 2014 - XXXV Congresso Nacional de Matematica Aplicada e Computacional, 8-12/09/2014, Natal/RN, Brazil

Springer Proceedings in Mathematics (PROM), dedicated to the Workshop Fluid Dynamics in Porous Media 2011, 12-14/09/2011, CMUC, Coimbra

The First International Conference on Parallel, Distributed and Grid Computing for Engineering, Pareng 2009

Other Research Experiences

July 2004-May 2005

Southern Methodist University(SMU), Dallas, Texas, USA,
Two research semesters spent in the SMU, under the PhD supervision of Prof. Ian Gladwell.
Research in "Development of BABD algorithms for distribute architecture parallel machine using Message Passage Interface (MPI)."

May 2002

ISSIA-CNR, Bari, Italy,
Research Stage in the ISSIA-CNR Centre, to develop the Master Thesis
Research in "Development codes for Image Reconstruction in C using GNC algorithms in the Research Department" ISSIA-CNR, Bari, Italy.

2-13 July 2001,

Participation in the
Summer school in Parallel Calculus at CINECA -Casalecchio di Reno (Bo), Italy.

Programming

C/C++, FreeFem++, Fortran 77-95, Matlab, Python