Alessandro Veneziani

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Education

PhD in Computational and Applied Mathematics, University of Milan, 1998,

Doctoral Dissertation: Mathematical and Numerical Modeling of Blood Flow Problems, July 1998, Alfio Quarteroni, advisor.

Laurea (Master of Science) in Electronic Engineering, Politecnico di Milano, 1994

Positions Held

Main Appointments

01/2017- **Full Professor (Tempo Definito/ Partial Appointment)**, School of Advanced Studies IUSS Pavia, IT

09/2015-, **Full Professor**, Department of Mathematics and Computer Science, Emory University, Atlanta, GA, USA

09/2007-08/2015, **Associate Professor**, Department of Mathematics and Computer Science, Emory University, Atlanta, GA, USA

01/2009-present, **Biomedical Engineering External Program Faculty**, Wallace H. Coulter Biomedical Engineering Department, Georgia Tech & Emory University, Atlanta, GA, USA

03/2002-08/2007, **Associate Professor**, MOX, Department of Mathematics, Politecnico di Milano, Italy

11/2000-02/2002, **Assistant Professor**, MOX, Department of Mathematics, Politecnico di Milano, Italy

10/1997-10/2000, **Assistant Professor**, Department of Science and Technology, University of Verona, Italy

Other Appointments

July 2013: **Visiting Professor** at the HTH Academic Center University of Bergamo (Italy)

2006-2007: **Adjunct Professor**, Department of Mechanical Engineering, University of Bergamo

September 2003, October 2004: **Visiting Professor** at the Bernoulli Institute, Lausanne

November 2000, March 2002, October 2002: **Visiting Professor** EPFL, Lausanne, Switzerland

2000-2004: **Adjunct Professor**, Department of Mechanical Engineering, University of Bergamo

January 1999: **Visiting Researcher** at the Department of Mathematics of EPFL

January 1996: **Visiting researcher** at the Biomedical Applications Group CRS4, Cagliari, Italy.

October 1994- September 1995: **Community Service**, Mario Negri Institute for Pharmacological Research

Research

Research Interests

Numerical Approximation of Partial Differential Equations, Preconditioning Techniques, Computational Fluid Mechanics, Domain Decomposition Methods, Multiscale Modeling, Numerical Modeling of the Cardiovascular System, Data Assimilation, Industrial Applications of Scientific Computing.

Google Scholar Score

Citation Indices	All	Since 2012
Citations	4579	2779
h-index	34	27
i10-index	73	64

Grants

2017-2018 coPI of GRAProject Covanos Phase IC (with H. Samady and D. Giddens – US$75,000)

2016-2019 PI of the NSF Project DMS1620406 "Efficient Modeling of Incompressible Fluid Dynamics at Moderate Reynolds Numbers" (Collaborative research with A. Quaini, Univ Houston – US $180,000)

2015-2016 PI of the Coulter Foundation Grant Grant "AngioCloud: Real-time vascular data analysis via cloud computing", (US $195,369)

2015 Emory URC Project, Numerical Methods for Flows at Moderate Reynolds Numbers in Left Ventricular Assisted Devices (LVAD) Role of Alessandro Veneziani: PI, (US $ 30,000)

2014 - 2017 NSF Project, DMS 1419060 "Hierarchical Model Reduction Techniques for Incompressible Fluid Dynamics and Fluid - Structure Interaction Problems", Goal: development of methods for incompressible fluids in network of pipes, based on a competitive hybrid finite elements/spectral discretization of the Navier - Stokes equations. Role of Alessandro Veneziani: PI, (US $ 248,700)

2014 - 2017 NSF Project, DMS - 1412973/DMS - 1413037, "Collaborative Research: Novel data assimilation techniques in mathematical cardiology - development, analysis and validation". Goal: development and validation of methods for estimating cardiovascular conductivities via variational techniques and model reduction approaches. Role of Alessandro Veneziani: PI, (US $ 150,000)

2014 - 2019 Absorb Inc: "BIORESORB" Goal: clinical trials and numerical analysis of bioresorbable stents. Role of Alessandro Veneziani: coPI (PI: H. Samady, MD, Emory University Hospital)

2014: PI of the GRA Venture Lab Grant "AngioCloud: Real-time vascular data analysis via cloud computing", (US $54,369)

2011-2012: PI of the Emory URC Project "Numerical modeling of porous media in moving domains" (US $ 28,575)

2010-2011: PI of the Project "Computational and Statistical Analysis of Brain Aneurysm Morphology and Hemodynamics", US $ 15,000, granted by the Brain Aneurysm Foundation

2008: PI of the Emory URC Project "Image based numerical fluid structure interactions simulations in computational hemodynamics" (US $ 30,000)

2005-2008: PI of the Project: "Set up of numerical and statistical tools for the rupture risk evaluation in cerebral aneurysms" (2005-2008) supported by Politecnico Foundation and SIEMENS Medical Solutions Italy (Euros 235,000)

2007: Former Coordinator of the Mathematical Unit of the Project HOT-FDI (Hollow and Transparent Fiber Design for Industries), Italian Research Ministry 2007-2009 (Euros 200,000) - *position left when moved to Emory*

2007: PI of the Project: "Fluid-structure interaction problems in motorcycle brakes" with Brembo Brakes (Euros 15,000)

2005: PI of the Project "Numerical simulations for the optimization of washing machines pumps" October 2004-January 2005 and April-May 2006 with Arylux PMP Elettropompe (Euros 5,000)

2002-2006: Coordinator of the Italian Unit of the EU Project "Haemodel" (Director: A: Quarteroni)

2002-2003: Co-PI in the Project: "Numerical Modeling of Glow Plugs for Diesel Engines" with Federal Mogul (Euros 28,000)

2004: Coordinator of the Project "Numerical Assessment of Performance of Competition Swimsuits" with Arena (Euros 20,000)

Participation to other projects

iCardioCloud, PI: F. Auricchio, Univ. of Pavia, Italy (2014-2017), Awarded by Fondazione Cariplo, Italy, Role: Consultant

PASCA2L: PAtient Specific Computational Analysis of Aortic hemodynamics over Large data sets, PI: F. Auricchio, Univ. of Pavia, Italy (2013-2014). Role: Co-PI Award: Access to computational CINECA clusters

Fast Solvers for Three-Dimensional Unstructured Finite Element Models of Incompressible Flows (2012-2013) Role: PI, Award: Access to NSF XSEDE Clusters

"Design of drug delivery stents" from the Cariplo Foundation, 2005-2007

"Computational Cardiology" from the Italian Institute for High Mathematics (INdAM) 2006-2007

"Complex Systems in Biomedicine" from the Italian Institute for High Mathematics (INdAM) 2005

COFIN2005 from the Italian Ministry of Scientific Research

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COFIN2001 from the Italian Ministry of Scientific Research

COFIN2000 from the Italian Ministry of Scientific Research

Agenzia2000 from the National Research Council (CNR), Italy

Large Scale Computing- Multiscale Models in Biology, from the Politecnico di Milano (2000-2001)

Honors

National Qualification to Full Professorship in Italy (Dec 2013)

International "Giovanni Sacchi-Landriani Prize" from the Academy of Arts and Letters of Lombardy Institute in Milan for numerical analysts of Partial Differential Equations younger than 40 years old

Recipient with A. Quarteroni and P. Zunino of the 2004 SIAM Outstanding Paper Prize

”Most notable paper” with S. Perotto of the Association of Computing Machinery 2015 (in Theory of Computing)

Best poster award presented at the 2014 CAE CONFERENCE, Verona, Italy, October 27th 2014 (with Sofia Guzzetti, Matteo Aletti, Alessandro Barone, Massimiliano Lupo Pasini and Simona Perotto)

Best poster presented at the 2008 Emerson Center Lectureship Award Symposium (with E. Agostoni and M. Perego)

Research Papers (Peer Reviewed)

1. Yang, H. and A. Veneziani (2017). *Model Order Reduction via POD-DEIM for the Estimation of Cardiac Conductivities*,. Appl Num Math, 115, 180-199
2. S. Perotto, A. Reali, P. Rusconi, A. Veneziani (2017) *HIGAMod: A Hierarchical IsoGeometric Approach for MODel reduction in curved pipes* , Computers and Fluids 142, pp. 21-29
3. Diego Gallo, Adrien Lefieux, Simone Morganti, Alessandro Veneziani, Alessandro Reali, Ferdinando Auricchio, Michele Conti, Umberto Morbiducci, *A patient-specific follow up study of the impact of thoracic endovascular repair (TEVAR) on aortic anatomy and on post-operative hemodynamics*., Computers & Fluids, Available online 29 April 2016, ISSN 0045-7930, http://dx.doi.org/10.1016/j.compfluid.2016.04.025.
4. L.A. Mansilla, P. Blanco, C. Bulant, Carlos, E. Dari, A. Veneziani, R. Feijóo (2017), *Transversally enriched pipe element method (TEPEM): An effective numerical approach for blood flow modeling*, Int. J. Numer. Meth. Biomed. Engng. 33: e2808. doi: 10.1002/cnm.2808.
5. F. Auricchio, M. Ferretti, A. Lefieux, M. Musci, A. Reali, S. Trimarchi, A. Veneziani (2016) *Assessment of a black-box approach for a parallel finite elements solver in computational hemodynamics*, International Journal of High Performance Computing Applications, to appear
6. Sofia Guzzetti, Tiziano Passerini, Jaroslaw Slawinski, Umberto Villa, Alessandro Veneziani, Vaidy Sunderam (2017) *Platform and Algorithm Effects on Computational Fluid Dynamics Applications in Life Sciences* Future Generation Computer Systems, 67, 382-296
7. CP Rivera, A Veneziani, RE Ware, MO Platt , *Sickle cell anemia and pediatric strokes: Computational fluid dynamics analysis in the middle cerebral artery*, Exp Biol Med **241** (7) 755-765, 2016
8. Alfio Quarteroni, Alessandro Veneziani, Christian Vergara, *Geometric multiscale modeling of the circulatory system, between theory and practice*, Comp Meth Appl Mech Eng, **302**, pp. 193-252, 2016
9. Ferdinando Auricchio, Adrien Lefieux, Alessandro Reali, Alessandro Veneziani, *A locally anisotropic fluid-structure interaction remeshing strategy for thin structures with application to a hinged rigid leaflet*, Tech Report Math & CS Department, Emory, TR-2015-001, Int J Num Meth Eng, doi:10.1002/nme.5159, 2016
10. L. Bertagna, A. Quaini, A. Veneziani, *Deconvolution-based nonlinear filtering for incompressible flows at moderately large Reynolds numbers*, Tech Report Math & CS Department, Emory, TR-2015-003, Int J Num Meth Fluids, doi:10.1002/fld.4192, 2016
11. Huanhuan Yang, Alessandro Veneziani *Estimation of cardiac conductivities in ventricular tissue by a variational approach*, Inverse Problem, **31**(11), pag 115001 (2015)
12. M. Restrepo and M. Luffel and J. Sebring and K. Kanter and P. del Nido and A. Veneziani and J. Rossignac and A. Yoganathan, "*Surgical Planning of the Total Cavopulmonary Connection: Robustness Analysis*." Annals of biomedical engineering, **43**(6), pp 1321-1334, 2015
13. Campbell, Ian C and Suever, Jonathan D and Timmins, Lucas H and Veneziani, Alessandro and Vito, Raymond P and Virmani, Renu and Oshinski, John N and Taylor, W Robert *Biomechanics and Inflammation in Atherosclerotic Plaque Erosion and Plaque Rupture: Implications for Cardiovascular Events in Women*, PloS, **9** (11), pp. e111785, 2014
14. G. H. W. van Bogerijen, F. Auricchio, M. Conti, A. Lefiueux, A. Reali, A. Veneziani, J.L. Tolenaar, F.L. Moll, V. Rampoldi, S. Trimarchi, *Aortic Hemodynamics After Thoracic Endovascular Aortic Repair With the Role of Bird-Beak*, J Endov Therapy, **21**, pp. 791-802, 2014 (This paper is followed by a commentary by a third party. The commentary concludes: “we believe that the approach adopted by van Bogerijen et al. is intriguing and may serve as a basis for a comprehensive understanding of how the C-TAG thoracic endoprosthesis performs”).

15. L. Bertagna and A. Veneziani *A model reduction approach for the variational estimation of vascular compliance by solving an inverse fluid-structure interaction problem* , Inverse Problems, **30**, doi:10.1088/0266-5611/30/5/055006 (2014), 23pp.
16. F. Auricchio, M. Conti, A. Lefieux, S. Morganti, A. Reali, F. Sardanelli, F. Secchi, S. Trimarchi, A. Veneziani, *Patientspecific analysis of post-operative aortic hemodynamics: a focus on Thoracic Endovascular Repair (TEVAR)* Comput Mech DOI 10.1007/s00466-014-0976-6 (2014)
17. A.Aposporidis, P. Vassilevski, A. Veneziani, Multigrid preconditioning of the non-regularized augmented Bingham fluid problem, ETNA (Electronic Transaction Numerical Analysis), **41**, pp. 42-61 (2014)
18. S. Perotto, A. Veneziani . *Coupled model and grid adaptivity in hierarchical reduction of elliptic problems*, J Sci Comp (2014) **60**:505-536
19. Ian C. Campbell, Lucas H. Timmins, Don P. Giddens, Renu Virmani, Alessandro Veneziani, Syed T. Rab, Habib Samady, Michael C. McDaniel, Aloke V. Finn, W. Robert Taylor, John N. Oshinski, *Computational Fluid Dynamics Simulations of Hemodynamics in Plaque Erosion*, Cardiov. Eng. Techn. vol **4** (4), 464-473 (2013)
20. Gogas, B. D., B. Yang, T. Passerini, A. Veneziani, M. Piccinelli, G. Esposito, E. Rasoul-Arzrumly, M. Awad, G. Mekonnen, O. Y. Hung, B. Holloway, M. McDaniel, D. Giddens, S. B. King and H. Samady. *Computational fluid dynamics applied to virtually deployed drug-eluting coronary bioresorbable scaffolds: Clinical translations derived from a proof-of-concept.* Global Cardiology Science & Practice 2014(4): 428-436.
21. Passerini, Tiziano, Annalisa Quaini, Umberto Villa, Alessandro Veneziani, and Suncica Canic. "Validation of an open source framework for the simulation of blood flow in rigid and deformable vessels." International journal for numerical methods in biomedical engineering **29**, no. 11 (2013): 1192-1213.
22. Ian C. Campbell, Daiana Weiss, Jonathan D. Suever, Renu Virmani, Alessandro Veneziani, Raymond P. Vito, John N. Oshinski, and W. Robert Taylor, *Biomechanical modeling and morphology analysis indicates plaque rupture due to mechanical failure unlikely in atherosclerosis-prone mice*, Am J Physiol Heart Circ Physiol February 1, 2013 **304**:H473H486;
23. J.P. Keller, L. Gerardo Giorda, A. Veneziani, *Numerical simulation of a susceptible-exposed-infectious space-continuous model for the spread of rabies in raccoons across a realistic landscape*, J Biol Dynamics, **7**, no. sup1, 31-46. (2013) DOI: 10.1080/17513758.2012.742578
24. A.Veneziani, U. Villa, *ALADINS: an ALgebraic splitting time ADaptive solver for the Incompressible Navier-Stokes equations.*, J Comp Phys, **238**, 359-375 (2013)
25. M. D'Elia, A. Veneziani, Uncertainty quantification for data assimilation in a steady Incompressible Navier-Stokes problem ESAIM: Mathematical Modelling and Numerical Analysis **47**, no. 04 (2013): 1037-1057.
26. Lucia Mirabella, Christopher M. Haggerty, Tiziano Passerini, Marina Piccinelli, Pedro J. Del Nido, Alessandro Veneziani, Ajit P. Yoganathan "Treatment planning for a TCPC test case: a numerical investigation under rigid and moving wall assumptions", Int J Num Meth Biomed Eng **29**(2), 197-216 (2013)
27. Marina Piccinelli, Yiemeng Hoi, Frank Tong, David Steinman, Alessandro Veneziani, Luca Antiga, *Automatic neck plane detection and 3D geometric characterization of aneurysmal sacs* Annals of Biomedical Engineering, Volume **40**, Issue 10, pp 2188-2211 (2012)
28. M. D'Elia, M. Perego, A. Veneziani, *A Variational Data Assimilation Procedure for the Incompressible Navier-Stokes Equations in Hemodynamics*, J Sci Comp, Volume **52**, Number 2 (2012), 340-359
29. Tiziano Passerini, Laura M. Sangalli, Simone Vantini, Marinia Piccinelli, Susanna Bacigaluppi, Luca Antiga, Edoardo Boccardi, Piercesare Secchi, Alessandro Veneziani, *An Integrated Statistical Investigation of the Internal Carotid Arteries hosting Cerebral Aneurysms*, Cardiovascular Engineering and Technology **3**(1), 26-40, 2012
30. A.Aposporidis, M. Olshanskii, E. Haber, A. Veneziani *An augmented formulation of the incompressible Bingham fluid problem: Analysis and numerical solution*, Comp. Meth. Appl. Mech. Eng., **200**:2434-2446, 2011
31. M. Perego, A. Veneziani, C. Vergara, *A Variational Approach for Estimating the Compliance of the Cardiovascular Tissue: An Inverse Fluid-Structure Interaction Problem*, SIAM J. Sc. Comp , **33**(3), pp. 1181-1211, 2011
32. M. Piccinelli, S. Bacigaluppi, E. Boccardi, B. Ene-Iordache, A. Remuzzi, A. Veneziani, L. Antiga, *Influence of internal carotid artery geometry on aneurysm location and orientation: a computational geometry study*, Neurosurgery, **68**(5):1270-1285, 2011.

33. L. Gerardo-Giorda, M. Perego, A. Veneziani, *Optimized Schwartz coupling of bidomain and monodomain models in electrocardiology*, M2AN, Vol. **45** (2), 2011.
34. F. Viscardi, C. Vergara, L .Antiga, S. Merelli, A. Veneziani, G. Puppini, G. Faggian, A. Mazzucco, G. B. Luciani, *Comparative finite-element model analysis of ascending aortic flow in bicuspid and tricuspid aortic valve* , Artificial Organs., **34**(12), pp. 1114-1120, 2010
35. L. Mirabella, F. Nobile, A. Veneziani, An a posteriori error estimator for model adaptivity in electrocardiology , Comp. Methods Appl. Mech. Engrg, vol. **200**, pp. 2727-2737, 2011
36. S. Perotto, A. Ern, A. Veneziani, *Hierarchical Local Model Reduction for Elliptic Problems I: A Domain Decomposition Approach*, SIAM MMS **8**(4), pp.1102-1127 (2010)
37. R. Ponzini, C. Vergara, G. Rizzo, A. Veneziani, A. Redaelli, A. Roghi, A. Vanzulli, O. Parodi, *Computational Fluid Dynamics based estimation of blood flow rate in Doppler analysis: In vivo validation by means of Phase Contrast Magnetic Resonance Imaging*, IEEE Trans Biomed Eng, **57**(7), pp. 1807-1815 (2010)
38. C. Vergara, R. Ponzini, A. Veneziani, A. Redaelli, D. Neglia, O. Parodi, *Womersley number-based estimation of flow rate with Doppler Ultrasound: Sensitivity analysis and first clinical application*, Computer Methods and Programs in Biomedicine, **98**(2), pp. 151-160 (2010)
39. V. Bacchelli, A. Veneziani, S. Vessella, *Corrosion Detection in a 2D domain with a polygonal boundary, Journal of Inverse and Ill-posed Problems*, **8**(3), pp. 281-305 (2010)
40. L. Formaggia, A. Veneziani, C. Vergara, *Numerical solution of flow rate boundary problems for an incompressible fluid in deformable domains*, Comp Meth Appl Mech Engr, **199**(9-12), pp. 677-688 (2010)
41. M. Perego, A. Veneziani, *An Efficient Generalization of the Rush-Larsen Method for Solving Electro-Physiology Membrane Equations*, ETNA (Electronic Transaction in Numerical Analysis), **35**, pp. 234-256 (2009)
42. M. Picinelli, A. Veneziani, D. A. Steinman, A. Remuzzi, L. Antiga, *A framework for geometric analysis of vascular structures: Applications to cerebral aneurysms*, **28**(8), IEEE Trans Biomed Imag, pp. 1141 - 1155 (2009)
43. T. Passerini, M. de Luca, L. Formaggia, A. Quarteroni, A. Veneziani, *A 3D/1D geometrical multiscale model of cerebral vasculature*, J Eng Math, **64**(4), pp. 319-330 (2009)
44. L. Gerardo-Giorda, L. Mirabella, F. Nobile, M. Perego, A. Veneziani , *A model preconditioner for the Bidomain problem in electrocardiology*, J. Comput. Phys., Vol. 228, pp. 3625- 3639 (2009)
45. A.Veneziani, *A Note on the Consistency and Stability Properties of Yosida Fractional Step Schemes for the Unsteady Stokes Equations*, SIAM J. Numer. Anal., **47**(4), pp. 2838-2843 (2009)
46. L. Formaggia, A. Veneziani, C. Vergara, *A new approach to numerical solution of defective boundary value problems in incompressible fluid dynamics*, SIAM J. Numer. Anal, **46**(6), pp. 2769-2794, 2008
47. L. M. Sangalli, P. Secchi, S. Vantini, A. Veneziani, *A Case Study in Explorative Functional Data Analysis: Geometrical Features of the Internal Carotid Artery*, Journal of the American Statistical Association, **104**(485), pp. 37-48 (2009)
48. L. M. Sangalli, P. Secchi, S. Vantini, A. Veneziani, *Efficient estimation of 3-dimensional centerlines of inner carotid arteries and their curvature functions by free knot regression splines*, Journal of the Royal Statistical Society Ser. C, Applied Statistics, **58**(3), pp. 285-306 (2009)
49. R. Balossino, G. Pennati, F. Migliavacca, L. Formaggia, A. Veneziani, M. Tuveri, G. Dubini, *Computational models to predict stenosis growth in carotid arteries: which is the role of boundary conditions?* , Comput Methods Biomech Biomed Engin., **12**(1), pp.113-23 (2009)
50. D. A. Di Pietro, A. Veneziani, *Expression Templates Implementation of the Continuous and Discontinuous Galerkin Methods*, Comp. Vis. Science, **12** , pp. 421-436 (2009)
51. A.Veneziani, C. Vergara, *An approximate method for solving incompressible Navier-Stokes problem with flow rate conditions*, Comp Meth Appl Mech Engr, **196**(9-12), pp. 1685-1700 (2007)
52. L. Formaggia, S. Micheletti, R. Sacco, A. Veneziani, *Mathematical modelling and numerical simulation of a glow-plug*, Appl Num Math, Volume 57, Issue 10 (October 2007) Pages: 1125-1144
53. R. Ponzini, C. Vergara, A. Redaelli, A. Veneziani, *Reliable CFD-based estimation of flow rate in haemodynamics measures*, Ultrasound in Medicine & Biology, **32**(10), pp. 1545-1555 (2006)
54. L. Formaggia, D. Lamponi, M. Tuveri, A. Veneziani, *Numerical Modeling of 1D Arterial Networks coupled with a Lumped Parameters Description of the Heart*, Computer Meth Biomech Biomed Eng, **9**(5), pp. 273 - 288 (2006)

55. P. Gervasio, F. Saleri, A. Veneziani, *Algebraic splitting methods for the incompressible Navier-Stokes Equations*, Journal Comp Phys **214**(1), 347-365 (2006)
56. Veneziani, C. Vergara, *Flow rate defective boundary conditions in haemodynamics simulations*, Int J Num Methods in Fluids, **42**, pp.803-816 (2005)
57. F. Saleri, A. Veneziani, *Pressure Correction Algebraic-Splitting Methods for the Incompressible Navier-Stokes Equations*, SIAM J Numer Analysis, **43**(1), pp. 174-194 (2005)
58. A.Gauthier, F. Saleri, A. Veneziani, *A fast preconditioner for the incompressible Navier Stokes Equations*, Comput Visual Sci, **6**, pp.105-112 (2004)
59. A. Quarteroni, A. Veneziani, *Analysis of a Geometrical Multiscale Model based on the Coupling between PDE's and ODE's for Blood Flow simulations*, SIAM MMS **1**(2) pp. 173-195 (2003)
60. Veneziani, *Block Factorized Preconditioners for High-order Accurate in Time Approximation of the Navier-Stokes Equations*, Numer Methods Partial Differential Eq, **19**, pp.487 510 (2003)
61. Quarteroni, A. Veneziani, P. Zunino, *A Domain Decomposition Method for Advection Diffusion Processes with Application to Blood Solutes*, SIAM J Sci Comp, **23**(6), pp. 1959-1980 (2002)
62. K. Lagan`a, G. Dubini, F. Migliavacca, R. Pietrabissa, A. Quarteroni, S. Ragni, A. Veneziani, *Multiscale Modeling as a tool to prescribe realistic boundary conditions for the study of surgical procedures*, Biorheology, **39** pp. 359-364, (2002)
63. A.Quarteroni, S. Ragni, A. Veneziani, *Coupled between lumped and distributed models for blood flow problems*, Comp Vis Science, **4**(2), pp.111-124 (2001)
64. A.Quarteroni, A. Veneziani, P. Zunino, *Mathematical and Numerical Modelling of Solutes Dynamics in Blood Flow and Arterial Walls*, SIAM J Numer Analysis, **39**(5), pp.1488-1511 (2001)
65. A.Quarteroni, F. Saleri, A. Veneziani, *Factorization Methods for the Time advancing of the incompressible NavierStokes equations*, Comp. Meth. Appl. Mech. Eng., **188**, pp. 505-526 (2000)
66. A.Quarteroni, M. Tuveri, A. Veneziani, *Computational Vascular Fluid Dynamics: Problems, Models and Methods*, Comp. Vis. Science, **2**, pp. 163-197 (2000)
67. L. Formaggia, F. Nobile, A. Quarteroni, A. Veneziani, *Multiscale modelling of the vascular system: a preliminary analysis*, Comp. Vis. Science, **2**, pp. 75-83 (1999)
68. A.Quarteroni, F. Saleri, A. Veneziani, *Analysis of the Yosida method for the incompressible Navier-Stokes equations*, Jou. Math. Pures Appl., **78**, pp. 473-503 (1999)
69. G. Abdoulaev, S. Cadeddu, G. Delussu, M. Donizelli, C. Manzi, L. Formaggia, A. Giachetti, E. Gobbetti, A. Leone, P. Pili, A. Schenine, M. Tuveri, A. Varone, A. Veneziani, G. Zanetti, A. Zorcolo, *ViVA: The Virtual Vascular Project*, IEEE Transactions on Information Technology in Medicine, **4**(2), pp. 268-274 (1998)
70. L. Gotusso, A. Veneziani, *Discrete and continuous models of the vibrating rod*, Math. Comp. Modelling, **24**, pp.99-115 (1996)
71. A.Iannelli, G. Prouse, A. Veneziani, *Analysis of a Nonlinear Model of the Vibrating String*, NODEA (Nonlinear Differential Equations and Applications), **3**, pp.149-177 (1996)
72. L. Gotusso, A. Veneziani, *Discrete and continuous models of the vibrating string*, "Dynamical Systems and Applications", World Scientific Series in Applicable Analysis, **4** (1995), pp.295-314
73. A.Iannelli, G. Prouse, A. Veneziani, *On a nonlinear model of the vibrating string*, Rend. Acc. Naz. dei Lincei, Serie IX, Volume V, Fascicolo 3, pp.223-228, (1994)
74. L. Gotusso, G. Prouse, A. Veneziani, *On two nonlinear models of the vibrating string*, Rend. Acc. Naz. dei XL, Memorie di Matematica, **112**, Vol. XVIII, pp. 201-225 (1994)

Book (editor)

- L. Formaggia, A. Quarteroni, A. Veneziani (eds) *Complex Systems in Biomedicine*, Springer Italia (2006)
- L.Formaggia, A. Quarteroni, A. Veneziani (eds.), *Cardiovascular Mathematics*, Springer (2009)

Chapters in Books

1. Olivia Y. Hung, Adam J. Brown, Sung Gyun Ahn, Alessandro Veneziani, Don P. Giddens, Habib Samady, *Association of Wall Shear Stress with Coronary Plaque Progression and Transformation*, Interventional Cardiology Clinics, 4(4), October 2015, Pages 491-502

2. Luca Bertagna, Marta D'Elia, Mauro Perego, Alessandro Veneziani. *Data Assimilation in Cardiovascular FluidStructure Interaction Problems: an introduction*, Tech Report TR-2013-012, Emory, MATH& CS, Bodnar, Tomas, Galdi, Giovanni P., Necasova, A. (Eds.) Fluid-Structure Interaction and Biomedical Applications, Birkh¨auser, ISBN 978-3-0348-0821-7

3. A. Quarteroni, A. Veneziani, *Modeling and Simulation of Blood Flow Problems*, "Computational Science for 21st Century", (J.L. Lions et al. eds.), J. Wiley and Sons, pp. 339-350.

4. A. Quarteroni, F. Saleri, A. Veneziani, *Approximation of Navier-Stokes Equations via Factorization Methods*, in "Navier-Stokes Equations: Theory and Numerical Analysis", (J. Heywood et al. eds.), Pittman Research Notes in Mathematics n.388, pp.322-334 (1998)

5. Co-author of Chapter 11 of the Book (in Italian): A. Quarteroni, Numerical Modeling of Differential Problems, 3rd ed., Springer Italia, Milano (2006), entitled "*Introduction to Finite Element Programming*" (as stated by the author in the Foreword of the book).

6. L. Formaggia, A. Quarteroni, A. Veneziani: *The circulatory system: from case studies to mathematical modelling*, in L. Formaggia, A. Quarteroni, A. Veneziani (eds) Complex Systems in Biomedicine, Springer Italia (2006)

7. L. Formaggia, A. Veneziani, *Geometrical Multiscale Models for the Cardiovascular System*, in Blood Flow Modelling and Diagnostics, ABIOMED Warsaw 2005

8. L. Formaggia, A. Veneziani, *Geometrical Multiscale Models for the Cardiovascular System*, in Modeling of the Cardiovascular System, C. Lazzari (ed.), Rome (2007)

9. J. Peiro, A. Veneziani, *Reduced Models for the Cardiovascular System, in L. Formaggia*, A. Quarteroni, A. Veneziani (eds.), Cardiovascular Mathematics, Springer (2009), pp. 347-394

10. L. Formaggia, A. Quarteroni, A. Veneziani, *Multiscale models for the Cardiovascular System*, in L. Formaggia, A. Quarteroni, A. Veneziani (eds.), Cardiovascular Mathematics, Springer (2009), pp. 395-446

11. M. D'Elia, L. Mirabella, T. Passerini, M. Piccinelli, C. Vergara, A. Veneziani, Some applications of Variational Data Assimilation in Computational Hemodynamics, in D. Ambrosi, A. Quarteroni, G.Rozza (eds.), Modelling of Physiological Flows, Springer (2011) , pp. 363-394.

Proceedings

1. L. Bertagna, Annalisa Quaini, Leo G. Rebholz and Alessandro Veneziani, On the sensitivity to the filtering radius in Leray models of incompressible flow, Tech Report 2016, Department of Math&CS, Emory University, www.mathcs.emory.edu, Springer-ECCOMAS series " Computational Methods in Applied Sciences"

2. D. Baroli, Cristina Cova, Simona Perotto, Lorenzo Sala, Alessandro Veneziani, *Hi-POD solution of parametrized fluid dynamics problems: preliminary results*, Tech Report 2016, Department of Math&CS, Emory University, www.mathcs.emory.edu, Proceedings MOREPASS15

3. Gogas, B. D., B. Yang, M. Piccinelli, Y. H. Bouchi, S. B. King III, N. Dib, D. P. Giddens, A. Veneziani and H. Samady (2016). *Feasibility of Optical Coherence Tomography Derived Computational Fluid Dynamics in Calcified Vessels to Assess Treatment With Orbital Atherectomy*, JACC: Cardiovascular Interventions 9(7): e65-e66.

4. Gogas, B. D., B. Yang, M. Piccinelli, D. P. Giddens, S. B. King III, D. J. Kereiakes, S. G. Ellis, G. W. Stone, A. Veneziani and H. Samady (2016). *Novel 3-Dimensional Vessel and Scaffold Reconstruction Methodology for the Assessment of Strut-Level Wall Shear Stress After Deployment of BioresorbableA Vascular Scaffolds From the ABSORB III Imaging^ Substudy*, JACC: Cardiovascular Interventions 9(5): 501-503.

5. Yang, B., B. Gogas, G. Esposito, O. Hung, E. R. Arzrumly, M. Piccinelli, S. King, D. Giddens, A. Veneziani and H. Samady (2015). *NOVEL IN-HUMAN FOUR DIMENSIONAL WALL SHEAR STRESS CALCULATION OF A CORONARY BIORESORBABLE SCAFFOLD USING OPTICAL COHERENCE TOMOGRAPHY IMAGES AND BLOOD FLOW SIMULATIONS* Journal of the American College of Cardiology 65(10S).

6. Tang E, Wei Z, Whitehead KK, Veneziani A, Fogel MA, Yoganathan AP. *Respiratory pulsations affect fontan connection power loss: using real time velocity mapping to improve the accuracy of computational simulations*. Journal of Cardiovascular Magnetic Resonance. 2015;17(1):1-3.

7. Guzzetti, Sofia, Alessandro Veneziani, and Vaidy Sunderam. *Experimental Optimization of Parallel 3D Overlapping Domain Decomposition Schemes*. Parallel Processing and Applied Mathematics. Springer International Publishing, pp. 138-149, 2015.

8. M. Aletti, A. Bortolossi, S. Perotto, A. Veneziani, *One-dimensional surrogate models for advection-diffusion problems*, Numerical Mathematics and Advanced Applications-ENUMATH 2013, pp. 447–455, 2015

9. L Gerardo Giorda, L Mirabella, M Perego, A Veneziani *Optimized Schwarz Methods and Model Adaptivity in Electrocardiology Simulations*, Proceeding of Domain Decomposition Conference 21 (2013)

10. Lorenzo Mauri, Simona Perotto, Alessandro Veneziani, *Adaptive geometrical multiscale modeling for hydrodynamic problems*, Numerical Mathematics and Advanced Applications 2011: Proceedings of ENUMATH 2011 edited by Andrea Cangiani, Ruslan L Davidchack, Emmanuil Georgoulis, Alexander N. Gorban, Jeremy Levesley, Michael V. Tretyakov, Springer, London (2013)

11. Jaroslaw Slawinski, Tiziano Passerini, Umberto Villa, Alessandro Veneziani, Vaidy Sunderam, *Experiences with TargetPlatform Heterogeneity in Clouds, Grids, and On-Premises Resources*, Proceedings of HCW 2012 21st International Heterogeneity in Computing Workshop

12. M. D'Elia, A. Veneziani, *Methods for assimilating blood velocity measures in hemodynamics simulations: preliminary results*, Proceedings of ICCS 2010, Data Driven Simulations, (2010)

13. A. F. Corno, C. Vergara, C. Subramanian, R. A. Johnson, T. Passerini, A. Veneziani, L. Formaggia, N. Alphonso, A. Quarteroni, J. C. Jarvis, *Assisted Fontan procedure: animal and in vitro models and computational fluid dynamics study*, Interactive CardioVascular and Thoracic Surgery, **10**, pp. 679-684, 2010

14. R. Ponzini, G. Rizzo, C. Vergara, A. Veneziani, U. Morbiducci, F.M. Montevecchi, A. Redaelli, Computational modeling of local hemodynamics phenomena: Methods, tools and clinical applications , Nuovo Cimento C della Societa' Italiana di Fisica - Colloquia on Physics, **32**(2), pp. 77-80, 2009

15. R. Ponzini, C. Vergara, A. Veneziani, A. Redaelli, *Design of new reliable CFD-based estimation of flow rate: Early in-vivo results*, Computers in Cardiology, pp. 953-955, 2008.

16. A. Ern, S. Perotto, A. Veneziani, *Hierarchical Model Reduction for Advection-Diffusion-Reaction Problems*, in *Numerical Mathematics and Advanced Applications Proceedings of ENUMATH 2007*, the 7th European Conference on Numerical Mathematics and Advanced Applications, Graz, Austria, K. Kunisch, G. Of and O. Steinbach (eds.), 2007

17. A. Veneziani, C. Vergara, *Flow Rate Boundary Conditions in Fluid-Dynamics*, PAMM Proceedings in Applied Mathematics and Mechanics, **6**, pp. 35-38, 2006 (Proceedings of the GAMM meeting 2006, Berlin)

18. Balossino R., Migliavacca F., Pennati G., Dubini G., Vergara C., Formaggia L., Venenziani A., Multiscale, *Models of the Cardiovascular System Applied to the Study of the Flow in a Carotid Bifurcation, in Technological innovation and evaluation of medical devices for the cardiovascular system*, Rapporti Istisan, 05/46, 2004.

19. L. Formaggia, F. Nobile, A. Quarteroni, A. Veneziani, P. Zunino, *Advances in numerical simulation of blood flow problems*, Proceedings of ECCOMAS2000, E. Onate et al (eds.) (CDRom paper - 14 pages), 2000

20. R. Pietrabissa, A. Quarteroni, G. Dubini, A. Veneziani, F. Migliavacca, S. Ragni, *From the global hemodynamics down to the local blood flow: preliminary applications of a multiscale approach*, Proceedings of ECCOMAS2000 E. Onate et al (eds.) (CDRom Paper - 17 pages), 2000

21. A. Quarteroni, A. Veneziani and P. Zunino, *Numerical investigation of transport and absorption phenomena of blood solutes*, in 18th UIT National Heat Transfer Conference, A. Niro et al., Eds., ETIS, Pisa, 2000, pp. 955-966

22. F. Nobile, A. Veneziani, *Fluid-Structure interaction in Blood Flow Problems*, Z. Angew. Math. Mech. 79, S255-S258 (1999)

23. A. Veneziani, *Boundary Conditions for Blood Flow Problems*, in Proceeding of ENUMATH97, R. Rannacher et al (eds.), pp. 596-605, 1998

24. A. Quarteroni, A. Veneziani, *Modellistica matematico-numerica del flusso del sangue nelle grandi arterie*, Atti dei Convegni Lincei n. 137, pp. 129-150, 1996

25. A. Quarteroni, A. Veneziani, *Vascular Fluid Dynamics: Modelling and Methods*, Rend. Ist. Lomb. Lettere, Scienze e Arti, pp. 219-271 (1998)

26. L. Gotusso, G. Prouse, A. Veneziani, *Linear and nonlinear models for the vibrating rod*, in Advances in Difference Equations, Proceedings of "Second International Conference on Difference Equations and Applications", S. Elaydi et al. (eds.), Gordon and Breach, (1997), pp. 245-252

27. L. Gotusso, G. Prouse, A. Veneziani, *Nonlinear models for the vibrating rod*, Proceedings of "VI Colloquium on Differential Equations", D. Bainov et al. (eds.) , SCT Publishing, (1995), pp. 135-143

28. L. Gotusso, G. Prouse, A. Veneziani, *On nonlinear models for the vibrating string*, Proceedings of "V Colloquium on Differential Equations", D. Bainov et al. (eds.), SCT Publishing, (1994), pp. 91-100

Technical Reports:

1. C. Lin, L. Ruthotto, A. Veneziani, *Numerical Methods for Polyline-to-Point-Cloud Registration with Applications to Patient-Specific Stent Reconstruction*, 2017

2. A. Viguerie, A. Veneziani, *Inexact Algebraic Factorization Methods for the Steady Incompressible Navier-Stokes Equations at Moderate Reynolds Numbers*, 2017

3. A. Barone, F. Fenton, A. Veneziani. *Numerical Sensitivity Analysis of a Variational Data Assimilation Procedure for Cardiac Conductivities*, 2017

4. S. Guzzetti, S. Perotto and A. Veneziani (2016*), Hierarchical Model Reduction for Incompressible Flows in Cylindrical Domains: The Axisymmetric Case*, Tech Report 2016, Department of Math&CS, Emory University, www.mathcs.emory.edu

5. Boyi Yang, Marina Piccinelli, Gaetano Esposito, Tianli Han, Yasir Bouchi, Bill Gogas, Don Giddens, Habib Samady, Alessandro Veneziani, *Patient-Specific 3D Volumetric Reconstruction of Bioresorbable Stents*, Tech Report 2017, Department of Math&CS, Emory University, www.mathcs.emory.edu

6. Luca Bertagna, Simone Deparis, Davide Forti, Luca Formaggia, Alessandro Veneziani, *The LifeV library: engineering mathematics beyond the proof of concept*, Tech Report 2016, Department of Math&CS, Emory University, www.mathcs.emory.edu

7. M. Aletti, S. Perotto, Alessandro Veneziani, *HiMod Reduction of Advection-Di usion-Reaction Problems with General Boundary Conditions* , Tech Report 2016, Department of Math&CS, Emory University, www.mathcs.emory.edu

8. A. Veneziani, U. Villa, *ALADINS: an ALgebraic splitting time ADaptive solver for the Incompressible Navier-Stokes equations. Part 2: Implementation and 3D numerical results*, Tech Report Math & CS Department, TR 2011-011

9. M. Piccinelli, L. Mirabella, T. Passerini, E. Haber, *4D Image-Based CFD Simulation of a Compliant Blood Vessel*, Tech Report Math & CS Department, TR 2010-027

10. M. D'Elia, A. Veneziani *A data assimilation technique for including noisy measurements of the velocity field into Navier-Stokes simulations*, Tech Report Math & CS Department, TR 2010-008

11. E. Agostoni, M. Perego, S. Salsa, A. Veneziani, *Mathematical and Numerical Modeling of Focal Cerebral Ischemia*, Tech Report Math & CS Department, TR 2009-009

12. A. Veneziani, *Numerical analysis of two nonlinear models of the vibrating strings*, Tech. Rep. Department of Mathematics, Politecnico di Milano n. 156, October 1994

Other Published Work:

S. Bacigaluppi , M. Piccinelli , L. Antiga , A. Veneziani , T. Passerini , P. Rampini , M. Zavanone , P. Severi , G. Tredici , G. Zona , T. Krings , E. Boccardi , S. Penco, M. Fontanella, *Factors affecting formation and rupture of intracranial saccular aneurysms*, Neurosurgical Review, 37(1), 2014 (images of the paper used for the cover)

Dubini, G; Ambrosi, D; Bagnoli, P; Boschetti, F; Caiani, EG; Chiastra, C; Conti, CA; Corsini, C; Costantino, ML; D'Angelo, C; Formaggia, L; Fumero, R; Gastaldi, D; Migliavacca, F; Morlacchi, S; Nobile, F; Pennati, G; Petrini, L; Quarteroni, A; Redaelli, A; Stevanella, M; Veneziani, A; Vergara, C; Votta, E; Wu, W; Zunino, P, *Trends in biomedical engineering: focus on Patient Specific Modeling and Life Support Systems,* J Appl Biomater Biomech 9, 1090 (2011)

A. Veneziani's Lab, *Even Mathematics has a... Heart* (in Italian) SIMAI, 2011 http://maddmaths.simai.eu/schede-divulgative/anche-la-matematica-ha-cuore/

A. Quarteroni, F. Saleri, A. Veneziani, La modellistica va a scuola (*Mathematical models in high schools teaching*), Atti XXIV Convegno Nazionale sull'Insegnamento della Matematica (Proceedings of the 24th National Workshop on Math Teaching), 2006

A. Veneziani, *Geometrical multiscale modeling of the cardiovascular system: problems and perspectives*, ERCOFTAC Bulletin 2006 Bio-fluid Mechanics and Heat Transfer (2006):

www.wtb.tue.nl/woc/wet/ercoftac/sig bio/bulletin2006.htm

L. Formaggia, A. Veneziani, *Reduced and Multiscale Models for the Circulatory System*, Von Karman Institute Lecture Notes, May 2003

Invited Research Presentations:

1. The beauty of Medical Imaging, celebration for the 90th of Bracco Company, Milan, IT, Jun 26th 2017

2. Workshop on Advances in High Performance Computing, CINECA, Milan, IT, Jun 20th 2017

3. ECCOMAS Conference on Coupled Problems, Rhodes, GR, Jun 14th 2017, Invited Minisymposium
4. Gran Sasso Science Institute, L'Aquila, Italy, May 18th 2017, Invited
5. "Innovation in biomedicine: advanced in vitro and in silico models", Campus Biomedico, Rome, Italy, May 16th 2017, Plenary
6. Graduate Colloquia, Kennesaw State University, GA, May 2017
7. *Finite Element in Fluids*, Rome, IT, Apr 2017
8. IMATI Pavia, Italy, March 2017 (prospected)
9. Emory University Hospital, Clinical Grandrounds, Feb 17 2017
10. *Università degli Studi di Verona,* Verona, IT, December 22nd, 2016
11. *Recent developments in numerical methods for model reduction*, Paris, November 7th – 10th, 2016
12. *Emory University Hospital*, Department of Radiology, Research In Progress, Atlanta (GA), USA, Oct 12th 2015
13. *Emory University Hospital*, Department of Radiology, Clinical Grandrounds, Atlanta (GA), USA, Oct 6th 2015
14. *2016 SIAM Conference on Applied Mathematics Education*, Philadelphia, PA USA, September 2016
15. *University of Luxemburg*, Luxemburg, Jun 20th 2016
16. *HOFEIM 2016*, Jerusalem, IL, Jun 1st 2016
17. *University of Trento*, Trento, IT, Mar 10th 2016
18. *BCAM Basque Center of Applied Math*, Bilbao, ES, Feb 23rd 2016
19. *University of Bergamo*, Bergamo, IT, Dec 21st 2015
20. *University of Bergamo*, Bergamo, IT, Dec 19th 2015
21. *Instituto Superiore Tecnico, Lisbon*, PT, Nov 12th 2015
22. *ICES, University of Texas Austin,* Austin (TX), USA, Oct 23rd 2015
23. *Emory University Hospital*, Atlanta (GA), USA, Oct 5th 2015
24. *Free University of Bolzano*, Bolzano, IT, Sep 23rd 2015
25. *Department of Applied and Computational Mathematics, and Statistics, Notre Dame University*, IN , USA, April 17th 2015
26. *School of International Advanced Studies* (SISSA), Trieste (Italy), Dec 19th 2014
27. Universita La Sapienza, Rome (Italy), Nov 26th 2014
28. Georgia State University, Atlanta (GA) USA, Oct 17th 2014
29. BCAM, Bilbao (Spain), July 4th 2014
30. *National Group of Biomedical Engineering*, Pavia (Italy), June 27th 2014 (plenary)
31. *The 8th Southeast Meeting on Soft Materials*, Emory University, Atlanta (GA), May 14th 2014 (plenary)

32. AMS Meeting, Lubbock (TX), Apr 12th 2014
33. *Georgia Scientific Computing*, Kennesaw State University, GA Feb 22nd 2014 (Plenary)
34. MBI CTW Workshop Molecular to Systems Physiology, Columbus OH, 5-9 May 2014, invited talk
35. ICERM Workshop, "From the Clinic to Partial Differential Equations and back", Providence, RI, Jan 19-24 2014 (Plenary + Tutorial)
36. 3rd Int Conference on Computational & Mathematical Biomedical Engineering, City University of Hong-Kong, Tat Chee Avenue, Kowloon, Hong Kong SAR , (Keynote Speaker) Dec 16-18 2013
37. MBI Workshop: Mathematics Guiding Bioartificial Heart Valve Design, Columbus OH, 28-31 October 2013, invited talk
38. Advances in Computational Mechanics, San Diego CA, Feb 25-28 2013 (invited Minisymposium)
39. Conference Modeling and Simulation of Physiological Systems, Lisbon (PT), Dec 5-9 2012 (plenary)
40. MBI Workshop Statistics of Time Warpings and Phase Variations Workshop , two invited talks, Columbus OH, 13-16 November 2012, (invited talk)
41. 2nd Workshop on Scientific Computing in Health Applications: Sao Paulo, Brazil (Aug 6-8 2012), (Plenary)
42. 2012 SIAM Conference on Imaging Science Philadelphia, PA, May 21-23 2012, (Minisymposium)
43. Case Western Reserve University, Cleveland, OH 4/13/2012, (invited talk)
44. Career Day for Mathematical Engineering, Politecnico di Milano, Italy, October 19th 2011 (Plenary)
45. Data Assimilation in Computational Hemodynamics, University of Houston (9/28/2011) (Invited talk)
46. *MITACS-Fields Conference on Mathematics of Medical Imaging*, Vancouver (CA), 2-7 October 2011, invited talk
47. *Partial Differential Equations in Mathematical Physics and their Numerical Approximation*, Levico Terme (Italy), September 4th-9th 2011, Plenary
48. *MITACS-Fields Conference on Mathematics of Medical Imaging*, Toronto (CA), 20-24 June 2011, Minisymposium
49. *Mathematical Fluid Mechanics and Biomedical Applications*, Azores (Portougal), June 2011, invited talk
50. *First Workshop on Approximation Theory and Harmonic Analysis (ATHA)*, Kennesaw State University GA (USA), May 14th-15th 2011, Plenary
51. *Department of Mechanical Engineering, University of Pittsburgh*, Pittsburgh PA (USA), Dec 9th 2010, invited talk
52. *Department of Mathematical Sciences, Clemson University*, Clemson SC (USA), Nov 12th 2010, invited talk
53. *Department of Scientific Computing, Florida State University*, Tallahassee FL (USA), Oct 27th 2010, invited talk
54. *Department of Applied Mathematics, Brown University*, Providence RI (USA), Oct 11th 2010, invited talk
55. *IBM Watson Lab*, Ossining, NY (USA), Sep 29 2010, invited talk
56. *VI World Congress of Biomechanics*, Singapore, 1-8 August 2010, Minisymposium
57. *First Workshop on Scientific Computing in Health Applications*, Petropolis, Brazil, 28-30 June 2010, Plenary

58. *Mathematical Fluid Mechanics and Applications* , Evora, Portugal, 18 June 2010, Plenary
59. *Eccomas Conference in Computational Mechanics*, Lisbon, Portugal, 13-17 June 2010, Minisymposium
60. *Fourth Meeting on Modeling of Physiological Flows*, Chia Laguna, Italy, 2-5 June 2010, Plenary
61. *Emory Hospital*, Emory University, Dec 4 2009, invited talk
62. *Department of Mathematics*, University of Alabama, AL, Nov 13 2009, invited talk
63. *Computational Challenges in Integrative Biological Modeling*, MBI Ohio State, Colmbus, October 5-8 2009, invited talk
64. *Georgia Scientific Computing*, Emory University, GA, Feb 21 2009, invited talk
65. *Computational Life Sciences*, Emory University, GA, Jan 30 2009, invited talk
66. *Department of Mathematics*, University of Colorado Springs, CO, Dec 12 2008
67. *Department of Mathematics*, University of Houston, TX, Nov 13 2008, invited talk
68. *BergamoScienza*, Bergamo, Italy, Oct 10 2008, Plenary
69. *Workshop: Optimal Transport in the Human Body, Lungs and Blood*, IPAM, UCLA, Los Angeles (CA), May 19-23 2008, Plenary
70. *Emory Children Care*, Atlanta, GA, USA, March 21 2008, invited talk
71. *Emory Math & CS Graduate Students Seminar*, Atlanta, GA, USA, March 18 2008, invited talk
72. *Emory Hospital*, Atlanta, GA, USA, November 30 2007, invited talk
73. *Department of Mathematics, GA Tech*, Atlanta, GA, USA, November 19 2007, invited talk
74. *University of Padua*, March 23rd 2007 (two invited talks in the same day)
75. *Department of Mechanical Engineering, University of Pittsburgh*, March 1st 2007, invited talk
76. *Workshop INDAM Multiscale 2006*, Cortona September 18-22 2006, Plenary
77. *Workshop on Blood Flow Simulations*, Heidelberg, May 13rd 2004, invited talk
78. *VIII International Conference on Computational Fluid Dynamics*, Oxford UK, March 29th- April 1st 2004, Plenary
79. *University of Trento*, December 3rd 2003, invited talk
80. *University of Catania*, November 13rd 2003, invited talk
81. *Workshop on Fluid-Structure Interaction Methods in Biomedical and Astrophysical Applications, Catania*, November 12nd 2003, invited talk
82. *Contemporary Challenges in Fluid Dynamics, Capo Miseno (NA)*, 28 May - 4 June 2001, Plenary
83. *Neuroscience Department, University of Milano*, October 13th 2000, invited talk
84. *Istituto per le Applicazioni del Calcolo "M.Picone"*, Roma, March 31st 1999, invited talk
85. *University of Bari*, Bari, November 26-27th 1998 (two invited talks)
86. *Centre for Advanced Research in Sardinia*, Cagliari, July 2nd 1998, invited talk

87. *Centre for Computational Engineering Research, Politecnico di Milano*, May 8th 1996, invited talk

Other Presentations:

- Numerous contributed talks and posters at various meetings (recently: SIAM CSE 2017, Atlanta (GA), USA, Feb 2017).
- Panelist at the EPIC-SEC Conference, Emory, Atlanta (GA) USA, March 3-5 2016 (Emory Practical Intervention Course-Southeast Consortium) and April 20-22 2017
- Student addressing for the new course of Technology in Healthcare, University of Bergamo, Italy, Sep 14th 2015 and Dec 18th 2015
- Round Table at the Career Day in Mathematics, Kennesaw State University (GA), November 12th 2011
- "Excursion in Math", an event organized by the AWM, Emory, November 14th 2009
- "A tu per tu con...", Emory University (Department of Italian), March 2009
- Talks in some Italian high and middle schools concerning the beauty of mathematics and the most challenging applications in medicine, sport, environmental sciences (last one: November 2017, Lithia Springs, GA)
- Conference at the 24th Workshop UMI-CIIM, Aci-Reale (CT), Italy on *Teaching Mathematical Models in High Schools*, October 13rd 2005
- Round Table on Perspectives of Applied Mathematics in Industry, Politecnico di Milano (with the Vice-Chairman of the National Industrial Association, Dr. Alberto Bombassei, the Provost of the Politecnico di Milano, the Chairman of the Poltecnico Foundation), May 23rd 2006
- FLUENT User Group Meeting, Milan, October 5th 2001 (Invited Talk)

Teaching

Teaching Experience:

Undergraduate:

Linear Algebra (Math 221), Emory University, AY 2007-2008, 2008-2009
Numerical Analysis (Math 315), Emory University, AY 2008-2009, 2009-2010, 2010-2011
Ordinary Differential Equations (Math 212), Emory University, AY 2009-2010, AY 2010-2011, AY 2014-2015
Partial Differential Equations (Math 351), Emory University, AY 2010-2011, AY 2011-2012, AY 2012-2013 (two semesters), AY 2013-2014 (two semesters), AY 2014-2015 (two semesters), AY 2015-2016, AY 2016-2017
Partial Differential Equations in Action (Math 352), Emory University, AY 2012-2013 (Maymester), AY 2013-2014 *This course has been proposed and designed by Alessandro Veneziani for the students of Emory University*
Mathematical Modeling AY 2016-2017
Foundations of Mathematical Modeling, Emory University, Summer semester AY 2012-2013 (for high school students)
Numerical Analysis, Politecnico di Milano, from AY 2000-2001 to 2002-2003
Numerical Methods in Engineering, Politecnico di Milano, AY 2003-2004, 2004-2005
Mathematical and Numerical Methods for Aerospace Engineering, Politecnico di Milano, AY 2002-2003, 2003-2004
Computational Fluid Dynamics, Politecnico di Milano, from AY 2004-2005 to 2006-2007
Numerical Methods for Partial Differential Equations, Politecnico di Milano, from AY 2004-2005 to 2006-2007
Numerical Analysis (laboratory), University of Verona, from AY 1997-1998 to 1999-2000
Approximation of Differential Equations (laboratory), University of Verona, AY 1998-1999 1999-2000
Computers Architecture (laboratory), University of Verona, AY 1998-1999
Numerical Analysis, University of Bergamo, AY 2000-2001,2001-2002,2004-2005,2006-2007

Master & Graduate:
Data Assimilation, IUSS Pavia, AY 2016-2017
Mathematical Modeling of the Circulatory System, University of Verona, AY 2016-2017 (one week intense course – instructor and director)
Computational Fluid Dynamics, Emory University, AY 2008-2009
Numerical Analysis II, Emory University, AY 2007-2008, 2009-2010, 2011-1012, 2013-2014, 2015-206
Numerical Partial Differential Equations, Emory University, AY 2010-2011, AY 2012-2013, AY 2014-2015, AY2016-2017
Mathematical and Numerical Models for the Cardiovascular System, Politecnico di Milano, AY 2006-2007
Numerical Methods for Engineering, University of Bergamo, 2002-2003, 2003-2004;
Iterative Methods for Large Sparse Linear Systems (special topic five hours course), University of Verona, 1998-1999

Specialization, Continuing education Courses:
Finite Elements: basics and applications, Politecnico di Milano (several editions)
Computational Fluid Mechanics, Politecnico di Milano (several editions)
Energy Finance and Commodity Trading (Module on C++ Programming and Finite Element Modeling), Politecnico di Milano (2005-2006, 2006-2007)
Blood Flow Modeling and Simulation at the Ecole Polytechnique Federale de Lausanne (2003)
Blood Flow Modeling and Diagnostics at the Technical Institute in Warsaw (Poland, 2005) *Blood Flow Modeling* at the INRIA, Paris (2004)
Course on *Mathematical Models for the Cardiovascular System* (special topics 4 hours course) at the School of Neurology, S. Gerardo Hospital, Monza (2004)
EMS-SMI Cortona Summer School *Mathematical and Numerical Models for the Cardiovascular System*, Cortona (Italy), August 16-31, 2008.

ERCOFTAC Course on *Fluid Structure Interaction in Biological Problems*, Prague (Czech Republic), August 29-September 4, 2011
Course on *Practical Computational Hemodynamics*, Pavia (Italy), July 2-5, 2012
Course on *Partial Differential Equations in Action*, Emory, Atlanta (USA), May 14-31, 2013
Course on *Computational Vascular Fluid Dynamics: from equations to software*, Pavia (Italy), July 2-4, 2013
Course on *Data Driven Computations in the Life Sciences*, Lisbon (Portugal), November 9-13, 2015 Course on *Computational Fluid Dynamics*, Pavia (Italy), December 14th-17th, 2015

Teaching Grants

Engaged Learning Grant-Fall Semester 2017, from The Emory Center for Faculty Development and Excelence, $1000

Text Book (author)

L. Formaggia, F. Saleri, A. Veneziani, *Solving Numerical PDE's: applications, problems and exercises*, Springer-Verlag, December 2011 (previous Italian edition published by Springer Italy 2005)

Students and post-docs:

- Past PhD students:
    1. Huanhuan Yang (2015) - Emory University, USA, currently post doc at Florida State University
    2. Boyi Yang (2015) - Emory University, USA, currently post doc at Emory
    3. Anastasia Svishcheva (2014) - Emory University, USA;
    4. Luca Bertagna (2014) - Emory University, USA, currently at Sandia Nat Lab, NM, USA
    5. Alexis Aposporidis , November 2012, Emory University, USA, currently at the German Aerospace Center, DE
    6. Umberto Villa, November 2012, Emory University, USA, currently at Lawrence Livermore National Lab, CA, USA
    7. Marta D'Elia, November 2011, Emory University, USA, currently at Sandia National Lab, NM, USA
    8. Maria Rita De Luca, March 2009 Politecnico di Milano, Italy, currently at the International School for Advanced Studies, Trieste, Italy
    9. Lucia Mirabella, March 2010 Politecnico di Milano, Italy (1.5 year spent at Emory), currently at SIEMENS, Plainsboro, NJ, USA
    10. Tiziano Passerini, March 2009, Politecnico di Milano, Italy (1.5 year spent at Emory), currently at SIEMENS, Plainsboro, NJ, USA
    11. Mauro Perego, March 2009, Politecnico di Milano, Italy (1.5 year spent at Emory), currently at Sandia National Lab, NM, USA
    12. C. Vergara, February 2006, Politecnico di Milano, Italy, currently associate professor at Politecnico di Milano, Italy
    13. S. Ragni (Co-advisor), July 2002, Politecnico di Milano, Italy. Advisor: Alfio Quarteroni, currently associate professor at University of Sassari, Italy
- Current PhD students:
    1. Ricardo J Bonilla - GA Tech, USA (co-advisor, on leave)
    2. Huijuan Xu - GA Tech, USA
    3. Sofia Guzzetti - Emory University, USA
    4. Alex Viguerie - Emory University, USA

5. Alessandro Barone- Emory University, USA

- Honors and SIRE Students

  1. Siqi Xue, Emory University (2017)
  2. Shuang Gao, Emory University (2017)
  3. Qinyi She, Emory University (2017)
  4. Han Tien Li, Emory University (2015)
  5. Kexin Qu, Emory University (2014)
  6. Shannon Buckley, Emory University (2014)
  7. Ye Yan, Emory University (2014)
  8. Lan Mi, Emory University (2013)
  9. Yifen Wang, Emory University (2013)
  10. Dylan Connor, Emory University (2012)
  11. Josh Keller, Emory University (2011)
  12. Ruth Blum, Emory University (2010)
  13. Elizabeth M. Cappello, Emory University (SIRE, 2010-2011)

- Other undergraduate students for small research projects (all at Emory University)

  1. Siqi Xue (2017)
  2. Claire Lin (2016)
  3. Emma Accorsi (2013)
  4. Binjie Wei (2013)
  5. Ngoc Hoan Lam Phan (2013)
  6. Hamzah Iqmal (2012)
  7. Jin Jing (2012)

- Past MSc students (Italy):

  1. M.GH. Carlino, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2017
  2. P. Rusconi, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2016
  3. A. Barone, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2014
  4. S. Guzzetti, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2014
  5. M. Lupo Pasini , Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2013
  6. M. Aletti, Politecnico Milano, Mathematical Engineering (Coadvisor, Advisor: S. Perotto), 2013
  7. R. Sala, Politecnico Milano, Aerospace Engineeering, 2008
  8. A. M. Costa, Politecnico Milano, Biomedical Engineering, 2007
  9. S. Vele, Politecnico Milano, Mathematical Engineering, 2007

10. E. Maculan, Politecnico Milano, Mathematical Engineering, 2007
11. L. Botti, University of Bergamo, Mechanical Engineering (coop. With M. Negri Institute) 2006
12. M. Gazzola, Politecnico Milano, Nuclear Engineering, 2006
13. M. Astorino, Mathematical Engineering (in cooperation with Ducati Motor Holding)
14. L. Sala, University of Brescia, Mechanical Engineering 2005 (Coadvisor; Adv: Prof. P.Gervasio)
15. T. Passerini, Politecnico Milano, Biomedical Engineering, 2005
16. M. Perego, Politecnico Milano, Electronic Engineering, 2005
17. M.R. De Luca, Politecnico Milano, Biomedical Engineering, 2005
18. G. Pierantoni, University of Bergamo, Mechanical Engineering (coop. With M. Negri Institute) 2005
19. W. Mandelli, University of Bergamo, Mechanical Engineering (coop. With Brembo) 2004
20. P. Gabbiadini, University of Bergamo, Mechanical Engineering (coop. With Brembo) 2004
21. M. Meneghin, Politecnico di Milano, Energetic Engineering, 2004
22. A. Frullone, Politecnico Milano, Electronic Engineering, 2003
23. A. Gilardi, Politecnico di Milano, Aerospace Engineering, 2002
24. D. Mastalli, Politecnico Milano, Aerospace Engineering, 2002
25. C. Vergara, Politecnico Milano, Biomedical Engineering, 2002
26. G. Pertile, University of Verona, Computer Science 2002
27. C.Cavasin, University of Milan, Mathematics (Coadvisor; Adv: Prof. F. Saleri)
28. A. Di Matteo, Politecnico Milano, Aerospace Engineering, 2002
29. R. Bissoli, University of Verona, Computer Science, 2000
30. G. Concesa, Politecnico Milano, Electronic Engineering, 2000 (Coadvisor; Adv: Prof. A. Quarteroni)
31. V. Oliva, Politecnico Milano, Biomedical Engineering, 2000 (Coadvisor; Adv: Prof. A. Remuzzi)
32. S. Perticoni, Politecnico di Milano, Computer Science Engineering, 2002
33. G. L. Gamba, Politecnico Milano, Aerospace Engineering, 1999 (Coadvisor; Adv: Prof. A. Quarteroni)
34. S. Bellocchio, University of Milano, Mathematics, 1999 (Coadvisor; Adv: Prof. F. Saleri)
35. P. Zunino, Politecnico Milano, Aerospace Engineering, 1998 (Coadvisor; Adv: Prof. A. Quarteroni)
36. F. Nobile, Politecnico Milano, Electronic Engineering, 1998 (Coadvisor; Adv: Prof. A. Quarteroni)

- Post-doc:

1. Adrien Lefieux, Emory University (2015-present)
2. Boyi Yang, Emory University (2015-2017)
3. Gaetano Esposito, Emory University (2014-2015)
4. Leandro Gryngarten, Emory University (2013 - 2014), currently external collaborator of Dr. Veneziani's group
5. Tiziano Passerini, Emory University (2010-2013), currently at SIEMENS, Plainsboro, NJ, USA
6. Mauro Perego, Emory University (2009-2010), currently at Sandia National Lab, NM, USA
7. Lucia Mirabella, Emory University (2010), currently at SIEMENS, Plainsboro, NJ, USA

8. Luca Gerardo Giorda, Emory University (2008-2009), currently senior researcher at the Basque Center for Applied Math (BCAM), Bilbao, Spain
9. Christian Vergara, Politecnico di Milano (2006-2007) , currently assistant professor at University of Bergamo, Italy

- PhD and Honor Committees:

1. PhD Committee, Lizz Ifrig, GA Tech, 2016
2. Master Committee, Stephen Fazier, Emory University (Physics), 2016
3. PhD Committee, Fabrizio Gaudenzi, University of Pavia, 2015
4. PhD Committee, Elaine Tang, GA Tech, 2015
5. PhD Committee, Maria Restrepo, GA Tech, 2014
6. Honor Student Committee, Junying He, Emory University, USA, 2014
7. PhD Committee, Sebastian Berisha, Emory University, USA, 2014
8. PhD Committee, Jaroslaw Slawinski, Emory University, USA, 2013
9. PhD Committee, Veronica Bustamante, Emory University, USA, 2013
10. Hiring Committee for a position in Computational Imaging Science, Math & CS and Radiology, at Emory, USA, 2012
11. PhD Committee, Marina Piccinelli, TU Eindhoven, The Netherlands, USA, 2012
12. PhD Committee, Cristobal Bertoglio, Paris VI, France, 2012
13. PhD Committee, Verhena Khulemann, Emory University, USA, 2012
14. PhD Committee, Zheng Wang, Emory University, USA, 2011
15. Honor Student Committee, Adam Waxman, Emory University, USA, 2011
16. Honor Student Committee, James Nance, Emory University, USA, 2011
17. PhD Proposal Committee, Elaine Tang, GA Tech, USA, 2012
18. PhD Committee, Maria Restrepo, GA Tech, USA, 2011
19. PhD Committee, Zhojhoun Magnant , Emory University, USA, 2011
20. PhD Committee, Steven Hamilton, Emory University, USA, 2011
21. PhD Committee, Raya Horesh, Emory University, USA, 2010
22. PhD Committee, Ian Campbell, GA Tech, USA, 2009
23. PhD Committee, Piotr Wendykier, Emory University, USA, 2009
24. PhD Committee, Daniele Lamponi, EPFL Lausanne, Switzerland, 2004

Service

Institutional Activities:

- Member of Undergraduate Studies Committee, Dept. of Math & CS, Emory University (2011-present)
- PACE Advising for freshmen, Emory University (2010-present)
- High School Student Addressing Scuola Normale Superiore, Scuola Sant'Anna, IUSS, July 2017
- Hiring Committee for a position in Computational Mathematics, Math & CS, Emory, USA, 2013-2014
- University of Verona, Member of the Committee for the PhD Program in Cardiovascular Sciences (2006-2008)
- Politecnico di Milano, Member of the Committee for the PhD Program in Mathematical Engineering (2006-2007)
- Hiring Committee for an Assistant Professor, Numerical Analysis, University of Bergamo (2007)
- Politecnico di Milano Graduate studies committee (2000-2007) in Aerospace, Biomedical, Mathematical Engineering.
- Co-developer of PhD track in Mathematical Engineering, Politecnico di Milano(2003) (Faculty Committee)
- University of Verona Graduate studies committee (1997-2000) in Computer Science.

Professional Activities:

- Member of the American Mathematical Society (AMS)
- Member of the Society for Industrial and Applied Mathematics (SIAM)
- Member of the Scientific Board of the Center HTH (Human factors and Technology in Healthcare, Feb 2013 - present), University of Bergamo, Italy

Editorial Work:

- Member of the Editorial Board of the International Journal of Numerical Methods in Bioengineering
- Member of the Review Editorial Board of Frontiers in Pediatric Cardiology (Frontiers in Pediatrics)
- Refereed about 80 papers for the following journals: *Inverse Problems, Numer Math, Computers and Fluids, Computer in Biology and Medicine, J. Biomechanics, M2AN, Num Meth for PDE's, European J of Mechanics-B/Fluids, J Fluid Mech, Comp Meth Appl Mech Engr., Annals of Biomed Engr, Arch Appl Math, SIAM J Sc Comp, SIAM J Num Anal, J Comp Phys, Int J Num Meth Eng, SIAM J Sci Comp, Int J Num Meth Biomed Eng, J Med Devices*
- Reviewer for the American Mathematical Society

Conferences and Minisymposia Organized, Program/Scientific Committees:

- Minisymposium, Inverse Cardiovascular Modeling, CMBE17 (Pittsburgh, Apr 2017) – with C. Bertoglio
- Minisymposium *Recent challenges in Computaional Electrocardiology*, SIAM CSE 2017 Atlanta (Feb 2017)
- Minisymposium *Cardiovascular mathematics beyond the proof of concept*, SIAM CSE 2017 Atlanta (Feb 2017)
- Minisymposium *Modeling of Turbulence*, SIAM CSE 2017 Atlanta (Feb 2017)
- Minisymposium *Solution and Model Reduction in Computational Mechanics*, SIAM CSE 2017 Atlanta (Feb 2017)
- Workshop France-Atlanta: Mathematical Modeling in Healthcare, Emory University Oct 20-21 2016
- Minisymposium *Numerical Solution of the Incompressible Navier Stokes Equations: Old and New Challenges*, 13th USNCCM Congress, San Diego (CA), July 2015 (with Simone Deparis, Alfio Quarteroni)
- Minisymposium *Model and Solution Reduction Methods for Direct and Inverse Problems in Computational Mechanics*, 13th USNCCM Congress, San Diego (CA), July 2015 (with Simona Perotto, Pablo Blanco)
- Minisymposium *Simulation of Cardiovascular Procedures and Devices* 4th International Conference on Mathematical and Computational Biomedical Engineering - CMBE2015 July 2nd-4th 2015, Cachan (France) (with Ferdinando Auricchio, Alessandro Reali, Michele Conti, Simone Morganti)
- Minisymposium *Advances in Mathematical and Numerical Models for the Cardiovascular System*, Annual Meeting Society Math Biology, Atlanta (GA), July 3rd-6th 2015 (with Gaetano Esposito)
- ICERM Conference From the Clinic to Partial Differential Equations and Back: Emerging challenges for Cardiovascular Mathematics (January 20 - 24, 2014), Brown University 2014
- Minisymposium " Surrogate modeling approaches for PDEs", ENUMATH2013, August 2013, Lausanne, CH (with S. Perotto, K. Smetana)
- *Georgia Scientific Computing*, Emory University, February 12th 2011.
- Minisymposium "Computational Approaches to the Risk Assessment for Cerebral Aneurysms", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with M. Picinelli and T. Passerini)
- Minisymposium "Inverse problems in Cardiovascular Mathematics", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with M. Perego)
- Minisymposium "Mathematical Models and Numerical Methods for Cardiac Electromechanics", ICIAM 2011, July 18 - 22, 2011, Vancouver, BC, Canada (with L. Mirabella)
- Minisymposium "Pateint specific modeling of blood flow problems", MATHEMATICS OF MEDICAL IMAGING, Toronto, Canada, June 20th-24th (with D. Steinman)
- Minisymposium "Computational approaches to the risk assessment for cerebral aneurysms" SIAM CSE 2011, Feb 28 - March 4, 2011 (with M. Picinelli and T. Passerini)
- Minisymposium "Computational challenges in patient-specific modeling: images, data and simulations" SIAM CSE 2011, Feb 28- March 4, 2011
- Minisymposium "Inverse Vascular Mathematics" (with C. Vergara), 2nd International Conference on Mathematical and Computational Biomedical Engineering - CMBE2011 March 30 - April 1, 2011, Washington D.C., USA

- Minisymposium “Methods of Numerical Cardial Electro-Mechanics” (with L. Mirabella, M. Perego), 2nd International Conference on Mathematical and Computational Biomedical Engineering - CMBE2011 March 30 - April 1, 2011, Washington D.C., USA
- Minisymposium “Cardiovascular Mathematics” (with L Gerardo Giorda) at IMACS Conference 2009, Athens (GA), August 3-7, 2009.
- Minisymposium “Cardiovascular Mathematics” (with JF Gerbeau) at SIAM CSE Meeting 2009, Miami (FL), March 2-6, 2009.
- III Workshop on Modeling of Physiological Flows, Villa Camozzi (Ranica-BG), 25-27 Settembre 2006
- INDAM Workshop “Integrazione di Sistemi Complessi in Biomedicina: modelli, simulazioni, rappresentazioni”, Bergamo, 22-24 November 2004
- First Internal Meeting Haemodel European Project, Bergamo, 29 April-2 May 2003
- International Workshop: “Cardiovascular System: from mathematics to clinical applications”, Milan 6-8 March 2002
- Minisymposium: “Computational Hemodynamics: Problems and Methods”, XI ECMI Conference, Altavilla Milicia (PA), September 2000