

CURRICULUM VITAE of

LUCIA GASTALDI

Contacts

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Personal information

Born in Milan, Italy, 28 February 1956

Home address: Via Allende 57, I-27100 Pavia, Italy.

Present position

Full Professor of Numerical Analysis, University of Brescia, Italy (since 1996.11.01)

Affiliations

- Member of Department of Civil, Environmental, Architectural Engineering and of Mathematics, University of Brescia
- Associate Researcher at the Istituto di Matematica Applicata e Tecnologie Informatiche (IMATI-C.N.R.) of CNR, Pavia, Italy.

Education

Degree in Mathematics, University of Pavia, 13 October 1978.

Past positions

- Full Professor of Numerical Analysis, Università di Roma “La Sapienza”, from 1996.11.01 to 1997.10.31
- Associate professor of Numerical Analysis, University of Pavia, from 1990.11.01 to 1996.10.31
- Associate professor of Numerical Analysis, University of Trento, from 1987.09.29 to 1990.10.31
- Assistant professor (ricercatore), University of Pavia, from 1980 to 1987.09.28

Research interest

- Discretization of partial differential equations
- Finite element method and a priori error estimates
- Approximation of eigenvalue problems for PDEs
- Fluid-structure interaction problems

- Immersed Boundary method
- A posteriori error estimates for FEMs
- Adaptive finite element methods

Visiting positions

- From 2017.03.11 to 2017.03.20, Department of Mathematics, University of Buenos Aires, scientific collaboration with Prof. Ricardo G. Duran and Ariel Lombardi, under the project SAC.AD002.001.003/ ARGENTINA - CONICET - 050.000.
- From 2016.01.17 to 2016.01.22, Department of Mathematics, University of Buenos Aires, scientific collaboration with Prof. Ricardo G. Duran and Ariel Lombardi.
- Dal 27.06.2012 al 07.07.2012, Department of Mathematics, University of Buenos Aires, scientific collaboration with Prof. Ricardo G. Duran, bilateral protocol of Scientific and Technological Cooperation between Italy and Argentina, ricerca congiunta fra CNR, Istituto di matematica applicata alle tecnologie informatiche e Universidad de Buenos-Aires, Departamento de Matematica, titolo Metodi numerici innovativi per problemi con geometrie complesse e mobili in ambito industriale.

Conference and Minisymposium invitations

- *Convergence of adaptive FEM for the approximation of eigenvalues of PDEs in mixed form*, USNCCM14, Montreal, 17-20 July 2017.
- *A fictitious domain approach with a distributed Lagrange multiplier for fluid-structure interactions*, SIMAI 2016, Politecnico di Milano, 13-16 September 2016.
- *A fictitious domain approach with a distributed Lagrange multiplier for fluid-structure interactions*, MAFELAP 2016, Uxbridge University London, 14-17 June 2016.
- *A fictitious domain approach with distributed Lagrange multiplier for fluid-structure interactions*, WONAPDE 2016, Concepcion, Chile 11-15 January 2016.
- *Adaptive FEM for approximating clusters of eigenvalues of the Laplace problem in mixed form*, ENUMATH 2015 Ankara 14-18 September 2015.
- *Adaptive FEM in the approximation of clusters of eigenvalues of the Laplace problem in mixed form*, USNCCM 2015 San Diego 26-30 July 2015.
- *Fluid-structure interaction problems: a new variational formulation for FE-IBM*, Keynote lecture in a mini-workshop in the framework of the project INDAM-GNCS "Computational Reduction Strategies for CFD and Fluid-Structure Interactions problems".
- *Convergence Analysis of the Finite Element Immersed Boundary Method with distributed Lagrange multiplier*, PANACM 2015 Buenos Aires, 27-29 April 2015.
- *New formulation of finite element immersed boundary method with distributed Lagrange multiplier*, AfriComp 2015 Marrakech, Morocco, January 7-9, 2015.

- *The Finite Element Immersed Boundary Method with distributed Lagrange multiplier*, FSI Grenoble - International Workshop on numerical methods and applications in fluid-structure interactions, Laboratoire Jean Kuntzmann, Tour IRMA Grenoble, November 24-25 2014.
- *Finite elements for Immersed Boundary Method*, SIMAI 2014 Taormina 6-10 July 2014.
- *Distributed Lagrange formulation for the finite element immersed boundary method*, Fluid Dynamics and Electromagnetism: Theory and Numerical Approximation, Levico 2-6 June 2014.
- *Distributed Lagrange formulation for the finite element immersed boundary method*, EFEF 2014, Vienna 30/31 May 2014.
- *Fictitious Domain Formulation for Immersed Boundary Method*, Enumath 2013, Lausanne, August 27, 2013.
- *Finite elements for immersed boundary method*, EFEF 2013 Heraclion Creta, 31 May -1 June 2013.
- *Finite elements for Immersed Boundary Method*, NAPDE Gargnano del Garda 20-22 March 2013.
- *A posteriori error estimates for nonconforming approximation of Laplace eigenproblem with multiple eigenvalues*, Wonapde Concepcion, Chile 14-18 January 2013.
- *Finite elements for immersed boundary method*, WCCM 2012 Sao Paulo Brazil, 9-13 July 2012.
- *Local mass conservation for the finite element immersed boundary method*, Scientific Computing 2011, October 11, 2011 Santa Margherita di Pula (CA).
- *Finite elements for the immersed boundary method*, Coupled Problems 2011, KOS, June 20-22, 2011.
- *Finite elements for the immersed boundary method*, DD20 San Diego, 7-11 February 2010.
- *Stability estimates for the finite element immersed boundary method*, SIMAI 2010, Cagliari, 21-25 June 2010.
- *Finite elements for the immersed boundary method*, IV European Congress on Computational Mechanics (ECCM IV): Solids, Structures and Coupled Problems in Engineering, Palais des Congrès in Paris (France) on 16-21 May 2010.
- *Finite elements for the immersed boundary method and added-mass effect*, SIAM Conference on Analysis of Partial Differential Equations (PD09), December 7-10, 2009, Miami, Florida.
- *Finite element approach to Immersed Boundary Method with added mass effects*, Conference on "Mathematical Physics and PDEs" - Levico, September 6-11, 2009.
- *The finite element immersed boundary method: model, stability, and numerical results*, Enumath 2009, Uppsala (Svezia), 29 June - 3 July 2009.
- *The finite element immersed boundary method: model, stability, and numerical results*, EFEF 2009, Helsinki, 5-6 June 2009.
- *The finite element immersed boundary method: model, stability, and numerical results*, ICCPDE-2008 Bombay, India, December 10-13, 2008.

- *The Finite Element Immersed Boundary Method: Model, Stability, and Applications*, WCCM8-ECCOMAS 2008, Venice, June 30 - July 4
- *Finite element immersed boundary method: application to the simulation of the cochlea*, US-NCCM9, San Francisco July 23-26, 2007.
- *On the CFL condition for the finite element immersed boundary method*, Fourth M.I.T. Conference, June 13-15, 2007 Focus: Fluid-Structure Interactions. Plenary lecture.
- *The finite element immersed boundary method: model, stability, and numerical results*, Multiscale Problem, Cortona 18-24 Sept. 2006.
- *Numerical analysis of the finite element immersed boundary method*, WCCM VII, Los Angeles, 16-22 July 2006.
- *Convergence analysis for hyperbolic evolution problems in mixed form*, MAFELAP, Brunel, Londra, 13-16 June 2006.
- *The finite element immersed boundary method: model, stability, and numerical results*, SIMAI Ragusa 22-26 May 2006.
- *Applicazione degli elementi finiti al metodo della frontiera immersa: modello, stabilità e risultati numerici*, Milano - 21 March 2006.

Session organization

- *Mathematical Aspects of Interface Problems* during Coupled Problems in Science and Engineering, Venezia 18-20 May 2015, co-organizer D. Boffi.
- *Mathematical Aspects of Interface Problems* during Coupled Problems in Science and Engineering, Ibiza 18-20 June 2013, co-organizer D. Boffi.
- *Finite elements for the immersed boundary method* during Coupled Problems in Science and Engineering, Kos 20-22 June 2011, co-organizer D. Boffi.
- *CIME 2006 C.I.M.E. Summer School on Mixed finite elements, compatibility conditions, and applications*, co-organizer D. Boffi. Lecturers: D. Boffi, F. Brezzi, L. Demkowicz, R. Duran, R.S. Falk, and M. Fortin.

Teaching activity

Advanced courses

- *Finite elements for mixed variational formulations*, IISc Bangalore, CIMPA Research School (India), July 2013.
- *Immersed boundary method*, Ecomas Course on Advanced Computational Methods for Fluid-Structure Interaction, Ibiza, Spain, 3-7 May 2006.

PhD. courses (in italian)

- Metodi Numerici per le equazioni differenziali, Dottorato in Metodi e Modelli Matematici per l'Ingegneria, University of Brescia, since a.a. 2011/12 to a.a. 2015/16.
- Strumenti numerici per la progettazione assistita da calcolatore, course for PhD students of the Faculty in Engineering, Brescia, a.a. 2008/09;
- Corso di Introduzione al Matlab, PhD in Ingegneria Gestionale, University of Brescia, a.a. 2006/07.

Master courses

- Analisi Numerica, Master course in Civil Engineering, University of Brescia, since a.a. 2010/11;
- Calcolo Numerico con Laboratorio, Master course in Engineering for Industrial Automation, University of Brescia, since a.a. 2011/12;
- Calcolo Numerico con Laboratorio, Master course in Mechanical Engineering, Faculty of Engineering, University of Brescia, since a.a. 2004/05 to 2010/11;
- Calcolo Numerico, Master course in Civil Engineering, Faculty of Engineering, University of Brescia, since a.a. 2003/04 to 2009/10.

Bachelor courses

- Matematica Applicata, Bachelor course in Engineering for Industrial Automation, Faculty of Engineering, University of Brescia, since a.a. 2003/2004 to 2007/08.
- Modulo di Analisi Matematica II del corso integrato Analisi Matematica e Ricerca Operativa, Bachelor course in Computer Engineering, Faculty of Engineering, University of Brescia, a.a. 2009/10.

PhD Students

Michele Annese since 01.01.2014 to 10.10.2017, PhD. in Civil and Environmental Engineering. Thesis: *Time integration schemes for fluid-structure interaction problems: non-fitted FEMs for immersed thin structures.*

<http://lucia-gastaldi.unibs.it/teaching.html>

Administration and evaluation

- Since 01.08.2017 I am member of the execution panel of the jurisdictional measures for the awarding of the *Abilitazione Scientifica Nazionale* to the functions of university professor in the sector *Numerical Analysis*.
- Since 2012 I serve as a member of *Giunta* of the Department of Civil, Environmental, Architectural Engineering and of Mathematics.
- Since 1/11/2012 I am Coordinator of Mathematics Section of the Department of Civil, Environmental, Architectural Engineering and of Mathematics.
- Since 1/11/2007 to 31/10/2012 I served as Director of the Mathematics Department of University of Brescia.

- Since 2011 I serve as Representative for the University of Brescia by CISIA (*CONSORZIO INTERUNIVERSITARIO SISTEMI INTEGRATI PER L'ACCESSO*) and organize the admission tests to the Bachelor Courses in Engineering.
- I have been a member of several boards for comparative evaluation in order to award university professor positions.
- I have been member of the examination board of the *Concorso Pubblico* for hiring a researcher for a C.N.R. institute.
- In the year 2011 I participated as expert in the peer review process (German Excellence Initiative) for the assessment of the Humboldt University of Berlin on 12 to 14 December 2011.
- I has been the local coordinator of research project of MIUR (Ministero Italiano dell'Università e Ricerca) denominated PRIN2006 and PRIN2008 and of a project supported by GNCS/INDAM.
- I am member of the Editorial Board of *Computers and Mathematics with Applications* and of *Computers and Structures*.
- I am serving as a reviewer for several journal in the field (including, *Math. Comp.*, *SIAM J. Numer. Anal.*, *Math. Models Methods Appl. Sci.*, *IMA J. Numer. Anal.*, *Applied Numerical Mathematics*, *Computers and Structures e Comp. Meth. Appl. Mech. Eng.*).

Publicazioni

1. **D. Boffi, L. Gastaldi, R. Rodríguez, I. Šebestová**, Residual-based a posteriori error estimation for the Maxwell's eigenvalue problem, *IMA J. of Numerical Analysis* (2017) doi: 10.1093/imanum/drw066
2. **D. Boffi, L. Gastaldi**, A fictitious domain approach with Lagrange multiplier for fluid-structure interactions, *Numer. Math.* 135 (2017) pp. 711-732.
3. **D. Boffi, D. Gallistl, F. Gardini, and L. Gastaldi**, Optimal convergence of adaptive FEM for eigenvalue clusters in mixed form, *Math. Comp.* 88 (2017) pp. 2213-2237.
4. **D. Boffi, L. Gastaldi**, Discrete models for fluid-structure interactions: the Finite Element Immersed Boundary Method, *Discrete and Continuous Dynamical Systems, Series S* 9 (2016) pp. 89-107.
5. **D. Boffi, N. Cavallini, L. Gastaldi**, The Finite Element Immersed Boundary Method with Distributed Lagrange multiplier, *SIAM J. of Numerical Analysis*, 53 (2015) pp. 2584-2604.
6. **D. Boffi, R.G. Durán, F. Gardini, L. Gastaldi**, A posteriori error analysis for nonconforming approximation of multiple eigenvalues, *Mathematical Methods in the Applied Sciences* (2015) doi:10.1002/mma.3452.
7. **F. Auricchio, D. Boffi, L. Gastaldi, A. Lefieux and A. Reali**, On a fictitious domain method with distributed Lagrange multiplier for interface problems, *APNUM* 95 (2015), pp. 36-50.
8. **D. Boffi, L. Gastaldi, M. Ruggeri**, Mixed formulation for interface problems with distributed Lagrange multiplier, *Computers and Mathematics with Applications* 68 (2014), pp. 2151-2166.

9. **F. Auricchio, D. Boffi, L. Gastaldi, A. Lefieux and A. Reali**, A study on unfitted 1D finite element methods, *Computers and Mathematics with Applications* 68 (2014), pp. 2080-2102.
10. **F. Cavalli, and L. Gastaldi**, Local enrichment of finite elements for interface problems, *Computers and Structures* 133 (2014) pp. 111-121.
11. **D. Boffi, N. Cavallini, F. Gardini, and L. Gastaldi**, Stabilized Stokes elements and local mass conservation, *Bollettino U.M.I.*, (9) ,V, No.3 (2012) pp. 543-573.
12. **D. Boffi and L. Gastaldi**, Some remarks on finite element approximation of multiple eigenvalues, *APNUM*, 79 (2014) pp. 18-28.
13. **D. Boffi, A. Buffa, L. Gastaldi**, Convergence analysis for hyperbolic evolution problems in mixed form, *Numerical Linear Algebra with Applications*, 20(4) (2013) pp. 541-556.
14. **D. Boffi, N. Cavallini, F. Gardini, L. Gastaldi**, Local mass conservation of Stokes finite elements, *J. Sci. Comput.*, 52 (2012) 383-400.
15. **D. Boffi, F. Gardini, L. Gastaldi**, Some remarks on eigenvalue approximation by finite elements, in *Frontiers in Numerical Analysis - Durham 2010*, Springer Lecture Notes in Computational Science and Engineering, 85 (2012), 1-77.
16. **D. Boffi, N. Cavallini, L. Gastaldi**, Finite element approach to immersed boundary method with different fluid and solid densities, *M3AS Math. Models Methods Appl. Sci.*, 21 (2011) 2523-2550.
17. **D. Boffi, N. Cavallini, F. Gardini, L. Gastaldi**, Immersed boundary method: performance analysis of popular finite element spaces, In *COUPLED PROBLEMS 2011. Computational Methods for Coupled Problems in Science and Engineering IV*. M. Papadrakakis, E. Onate and B. Schrefler (Eds). Cimne.
18. **D. Boffi, L. Gastaldi**, Some remarks on quadrilateral mixed finite elements, *Computers & Structures*, 87 (2009) 751-757.
19. **D. Boffi, L. Gastaldi, eds.**, Mixed Finite Elements, Compatibility Conditions, and Applications. **Lecture Notes in Mathematics**, LNMCIME 1939, Springer, (2008).
20. **D. Boffi, L. Gastaldi, L. Heltai, C.S. Peskin**, A note on the hyper-elastic formulation of the immersed boundary method, *Comp. Meth. Appl. Mech. Eng.*, 197 (2008) 2210-2231.
21. **D. Boffi, L. Gastaldi, L. Heltai**, On the CFL condition for the finite element immersed boundary method, *Computers and Structures*, 85 (2007) 775-783.
22. **D. Boffi, L. Gastaldi, L. Heltai**, Stability results and algorithmic strategies for the finite element approach to the immersed boundary method. In Springer-Verlag, editor, *Proceeding of the Sixth European Conference on Numerical Mathematics and Advanced Applications*, pages 557-566, 2005.
23. **D. Boffi, L. Gastaldi, L. Heltai**, Numerical stability of the finite element immersed boundary method, *M3AS Math. Models Methods Appl. Sci.*, 17 (2007) 1479-1505.
24. **D. Boffi, L. Gastaldi, L. Heltai**, The finite element immersed boundary method: model, stability, and numerical results. In *Computational Methods for Coupled Problems in Science and Engineering COUPLED PROBLEMS 2005*, Papadrakakis, Onate, Schrefler Eds., Cimne.

25. **D. Boffi, L. Gastaldi, L. Heltai**, Stability results for the finite element approach to the immersed boundary method. In *Computational fluid and solid mechanics 2005 Third MIT Conference on Computational Fluid and Solid Mechanics*, June 14-17, 2005, K.J. Bathe editor, pp. 93-96.
26. **L. Gastaldi**, A finite element approach to the immersed boundary method. In *MATHEMATISCHES FORSCHUNGSINSTITUT OBERWOLFACH*, Mini-Workshop: Interface Problems in Computational Fluid Dynamics, February 20-26, 2005, Report No. 8/2005, pp. 9016.
27. **D. Boffi, L. Gastaldi**, Interpolation estimates for edge finite elements and application to band gap computation, *Applied Numerical Mathematics*, 56 (2006) 1283-1292.
28. **D. Boffi, L. Gastaldi, L. Heltai**, A finite element approach to the immersed boundary method. *Progress in Engineering Computational Technology*, B.H.V. Topping and C.A. Mota Soares Eds., Saxe-Coburg Publications, Stirling, Scotland, (2004), Chapt.12 , pp. 271-298.
29. **D. Boffi, M. Conforti, L. Gastaldi**, Modified edge finite elements for photonic crystals, *Numer. Math.* 105 (2006) 249-266.
30. **D. Boffi, L. Gastaldi**, Analysis of finite element approximation of evolution problems in mixed form, *SIAM J. Numer. Anal.*, 42 (2004) 1502-1526.
31. **D. Boffi, L. Gastaldi**, Stability and Geometric Conservation Laws for ALE formulations, *Comp. Meth. Appl. Mech. Eng.*, 193 (2004) 4717-4739.
32. **D. Boffi, L. Gastaldi**, The immersed boundary method: a finite element approach, Proc. of the *Second M.I.T. Conference on Computational Fluid and Solid Mechanics*, June 17-20, 2003, U.S.A. , K.J. Bathe editor, Elsevier, vol.2 (2003) pp.1263-1266.
33. **D. Boffi, L. Gastaldi**, A finite element approach for the immersed boundary method, *Computer & Structures*, 81 (2003), pp.491-501.
34. **D. Boffi, L. Gastaldi, G. Naldi**, Application of Maxwell equations. In *Proceedings of SIMAI 2002*.
35. **D. Boffi, L. Gastaldi**, Edge finite elements for the approximation of Maxwell resolvent operator, *Mathematical Modelling and Numerical Analysis, M2AN*, 36 (2002), pp.293-305.
36. **D. Boffi, L. Gastaldi**, On the time-harmonic Maxwell equations in general domains. *Numerical Mathematics and Advanced Applications*, Proc. of Enumath 2001, Ischia, July 2001, Brezzi et al. eds, Springer Verlag (2002), pp.243-254.
37. **D. Arnold, D. Boffi, R. Falk, L. Gastaldi**, Finite element approximation on quadrilateral meshes, *Communications in Numerical Methods in Engineering*, 17 (2001), pp.805-812.
38. **D. Boffi, L. Gastaldi**, Eigenmodes computation on quadrilateral meshes, *Computing and Visualization in Science*, 4 (2001) pp 87-92.
39. **L. Gastaldi**, A priori error estimates for the Arbitrary Lagrangian Eulerian formulation with finite element, *East-West J. Numer. Math.*, 9 (2001), 123-156.
40. **D. Boffi, L. Gastaldi**, On the "grad div+s curl rot" operator, Proc. of MIT First Conference on *Computational fluid and solid mechanics*, June 12-15 2001, K.J. Bathe, editor, Elsevier, Vol. 2, (2001), 1526-1529.

41. **D. Boffi, L. Gastaldi**, On the quadrilateral Q2-P1 element for the Stokes problem, *Int. J. Numer. Meth. Fluids*, 39 (2002) pp. 1001-1011.
42. **D. Boffi, L. Gastaldi**, Finite element approximation of Maxwell's Eigenproblems, Proc. of *ENUMATH '99*, Jyvsky, Finland, July 26-30, 1999, ed. by P. Neittaanmki, T. Tiihonen and P. Tarvainen, World Scientific, Singapore, (2000), 502-509.
43. **D. Boffi, L. Gastaldi**, Remarks on quadrilateral finite elements for a fluid-structure eigenproblem, *European Congress on Computational Methods in Applied Sciences and Engineering. ECCOMAS 2000*.
44. **D. Boffi, C. Chinosi, L. Gastaldi**, Approximation of the grad div operator in non-convex domains, *CMES*, 1 (2000) 27-38.
45. **D. Boffi, C. Chinosi, L. Gastaldi**, Penalized approximation of the vibration frequencies of a fluid in a cavity, *CVS*, 3 (2000) 19-23.
46. **D. Boffi, M. Farina, L. Gastaldi**, On the approximation of Maxwell's eigenproblem in general 2D domains. *Computer and Structures*, 79 (2001) 1089-1096.
47. **R.G. Dúran, L. Gastaldi, C. Padra**, A posteriori error estimators for mixed approximations of eigenvalue problems, *Math. Models Methods Appl. Sci.*, 9 (1999) 1165-1178.
48. **D. Boffi, F. Brezzi, L. Gastaldi**, On the problem of spurious eigenvalues in the approximation of linear elliptic problems in mixed form, *Math. Comp.*, 69 (2000) 121-140.
49. **D. Boffi, P. Fernandes, L. Gastaldi, I. Perugia**, Computational models of electromagnetic resonators: analysis of edge element approximation, *SIAM J. Numer. Anal.*, 36 (1999), 1264-1290.
50. **D. Boffi, R.G. Durán, L. Gastaldi**, A remark on spurious eigenvalues in a square, *Applied Mathematics Letters*, 12 (1999) 107-114.
51. **D. Boffi, F. Brezzi, L. Gastaldi**, Mixed finite elements for Maxwell's eigenproblem: the question of spurious modes, In *Enumath 97 Proceedings of the Second European Conference on Numerical Mathematics and Advanced Applications*, Bock, H.G. and Brezzi, F. and Glowinski, R. and Kanschat, G. and Kuznetsov, Y.A. and Périaux, J. and Rannacher, R. eds., World Scientific Publishing Co. Pte. Ltd.(1998), 180-187.
52. **D. Boffi, F. Brezzi, L. Gastaldi**, On the convergence of eigenvalues for mixed formulations, *Ann. Scuola Norm. Sup. Pisa Cl. Sci. XXV* (1997) 131-154 (paper).
53. **D. Boffi, P. Fernandes, L. Gastaldi, I. Perugia**, Edge approximation of eigenvalue problems arising from electromagnetics. In *Numerical methods in Engineering '96*, proceedings of ECCOMAS '96, Parigi (Desideri, Le Tallec, Onate, Periaux, Stein eds.), pp. 551-556.
54. **F. Gastaldi, L. Gastaldi, A. Quarteroni**, ADN And ARN Domain Decomposition Methods for Advection Diffusion Equations, In *DD9 Proceedings*, Petter Bjorstad, Magne Espedal and David Keyes eds., (1998).
55. **F. Gastaldi, L. Gastaldi, A. Quarteroni**, Adaptive domain decomposition methods for advection dominated equations, *East-West J. Numer. Math.* 4 (1996) 165-206.

56. **L. Gastaldi**, Mixed finite element methods in fluid structure systems, *Numer. Math.* 74 (1996) 153-176.
57. **F. Gastaldi, L. Gastaldi**, Convergence of subdomain iterations for the transport equation, *Boll. U.M.I.* 9-B (1995) 175-202.
58. **L. Gastaldi**, Mixed finite element methods in fluid structure systems, In *Finite element methods: fifty years of the Courant method* Lecture Notes in pure and applied mathematics Vol. 164, Springer Verlag (1994) 217-223.
59. **L. Gastaldi**, A domain decomposition for the transport equation, In Proc. of the *Sixth Int. Conf on Domain Decomposition Methods in Science and Engineering*, A. Quarteroni ed., Contemporary Mathematics, 157 (1994) 97-102.
60. **L. Gastaldi**, Uniform interior error estimates for the Reissner-Mindlin plate model, *Math. Comp.* 61 (1993) 539-567.
61. **F. Gastaldi, L. Gastaldi**, On a domain decomposition for the transport equation: theory and finite element approximation, *IMA J. Num. Anal.* 14 (1993) 111-135.
62. **L. Gastaldi**, A domain decomposition method associated with streamline diffusion FEM for linear hyperbolic systems, *Applied Numerical Mathematics* 10 (1992) 357-380.
63. **L. Gastaldi, R.H. Nochetto**, Quasi - optimal pointwise error estimates for Reissner - Mindlin Plate, *SIAM J. Num. Anal.* 28 (1991) 363-377.
64. **L. Gastaldi**, Error analysis for a singular perturbation problem in semiconductors, *Boll. U.M.I.* 4-B (1990) 591-611.
65. **F. Brezzi, A.C. Capelo, L. Gastaldi**, A singular perturbation analysis for semiconductor device equations, *SIAM J. Math. Anal.* 20 (1989) 372-387.
66. **L. Gastaldi, R.H. Nochetto**, Sharp maximum norm error estimates for general mixed finite element approximations to second order elliptic equations, *M2AN* 23 (1989) 103-128.
67. **L. Gastaldi, R.H. Nochetto**, On L^∞ - accuracy of mixed finite element methods for second order elliptic problems, *Mat. Applic. Comp.* 7 (1988) 13-39.
68. **L. Gastaldi, R.H. Nochetto**, Optimal L^∞ - error estimates for nonconforming and mixed finite element methods of lowest order, *Numer. Math.* 50 (1987) 587-611.
69. **L. Gastaldi, F. Tomarelli**, A nonlinear and nonlocal evolution equation describing the muscle contraction, *Nonlinear Analysis. Theory, Methods and Appl.* 11 (1987) 163-182.
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71. **L. Gastaldi, F. Tomarelli**, A uniqueness result for a nonlinear hyperbolic equation, *Ann. Mat. Pura e Appl.* 137 (1984) 175-205.
72. **L. Gastaldi**, Approximation of a second order Stefan-like problem by means of a finite element method, *Calcolo* 20 (1983) 293-318.
73. **L. Gastaldi, G. Gilardi**, An error estimate for an approximation of a parabolic variational inequality, *Boll. U.M.I.* 1-B (1982) 501-521.