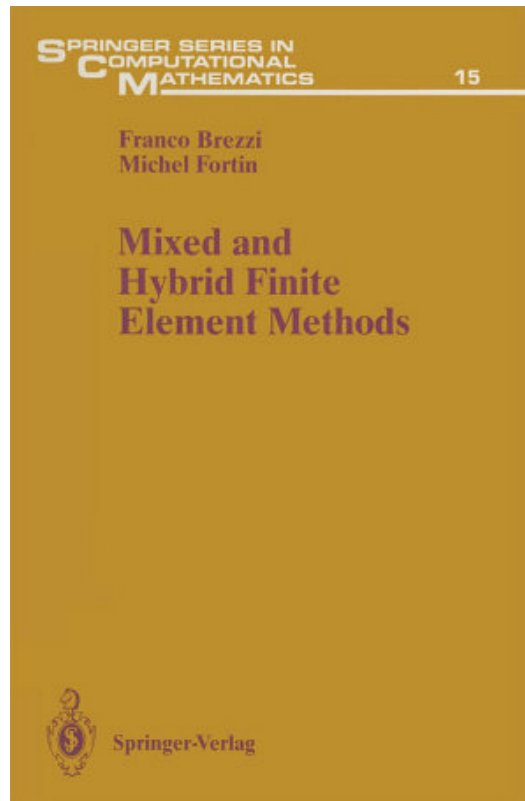




Professor Franco Brezzi



Franco Brezzi and Michel Fortin, *Mixed and Hybrid Finite Element Methods*, Springer Series on Computational Mathematics, 1991

See:

https://en.wikipedia.org/wiki/Franco_Brezzi

<https://translate.google.com/translate?hl=en&sl=it&u=http://arturo.imati.cnr.it/brezzi/&prev=search>

<https://scholar.google.co.uk/citations?user=7p8BjBoAAAAJ>

https://www.researchgate.net/profile/Franco_Brezzi

<http://www.roseschool.it/teachers/show/id/951>

<http://www.iusspavia.it/rubrica.php?id=197#.WByWHNy9iHk>

<http://www.sns.it/sites/default/files/brezzi francocv2016.pdf>

<http://orcid.org/0000-0003-4715-5475>

https://www.amazon.com/s?ie=UTF8&page=1&rh=n%3A283155%2Cp_27%3AFranco%20Brezzi

Institute of Applied Mathematics and Information Technologies Enrico Magenes CNR, Pavia, Italy

Biography (from Wikipedia, the free encyclopedia):

Franco Brezzi (born 29 April 1945 in Vimercate) is an Italian mathematician. He received in 1967 his Ph.D. (Laurea) under the supervision of Enrico Magenes from the Università di Pavia. He was a professor ordinarius of mathematical analysis at the Politecnico di Torino from 1976 to 1977 and then from 1977 to 2006 at the Università degli Studi di Pavia. He was a professor of numerical analysis at the Istituto Universitario di Studi Superiori (IUSS) in Pavia from 2006 until his retirement as professor emeritus in 2015. Brezzi has served as a managing editor for *Mathematical Models & Methods in Applied Sciences*, as the editor-in-chief of *Calcolo* and *Numerische Mathematik*, and as a member of the editorial staffs of numerous journals. He is a member of the Accademia dei Lincei, of the European Academy of Sciences and of the Istituto Lombardo. He was elected in

2002 a fellow of the International Association of Computational Mechanics (IACM) and in 2015 a fellow of the Society for Industrial and Applied Mathematics. Brezzi was the president of the Unione Matematica Italiana from 2006 to 2012. He was the director of the Istituto di Analisi Numerica of the CNR from 1992 to 2002 and of the Istituto di Matematica Applicata e Tecnologie Informatiche and the director of CNR from 2002 to 2012. Currently he is the vice president of the European Mathematical Society.

Research Interests:

His scientific interests are mainly concentrated in the field of Numerical Methods for Partial Differential Equations. In Particular, from the point of view of methodological tools, he works Mainly on Finite Element Methods (of various kinds). From the application point of view, he is mostly interested in the problems coming from various engineering fields, such as Structural Mechanics, Fluid Mechanics, and Electromagnetics. In Particular he worked on the Following topics:

1. Existence, uniqueness, and regularity of the solutions of boundary value problems for PDE
2. Numerical solution of linear elliptic problems with irregular date.
3. Basic properties of finite element methods (in Particular, non-standard fe .methods, as mixed, hybrid, etc.)
4. Approximation of variational inequalities and free boundary problems.
5. Behaviour and approximation properties of finite dimensional discretizations of bifurcation problems.
6. Theoretical and numerical problems in semiconductor device simulations.
7. Finite element analysis of plates and shells.
8. Domain decomposition methods.
9. Stabilization techniques in finite element formulations.
10. Residual-free bubbles and subgrid-scale simulations.
11. Approximation of eigenvalues of problems in mixed form.
12. Discontinuous finite element methods.
13. Mimetic finite differences.
14. Virtual Element Methods.

Awards:

1. Prize City of Cagliari in 1991 (with C. Cercignani)
2. THH Pian Medal at ICES'2K, 2000
3. Fellow of the International Association of Computational Mechanics (IACM 2002)
4. ISI Highly Cited Researcher in Mathematics
5. IACM Congress Medal (Gauss-Newton Medal) at the World Congress of Computational Mechanics (Beijing, China, 2004)
6. SIAM Von Neumann Award (Denver, USA, 2009)
7. RE Marker Lecturer (State College, USA, 2010)
8. Gili -Agostinelli prize in 2010 of the Academy of Sciences of Turin (Torino, Italy, 2010)
9. Blaise Pascal Medal for Mathematics of the European Academy of Sciences (Liege, Belgium, 2012)
10. Leonhard Euler Medal of the ECCOMAS (Barcelona, Spain, 2014)
11. SIAM Fellow 2015
12. Ritz-Galekin Medal of the ECCOMAS (Crete, Greece, 2016)x

Selected Publications:

Books:

Daniele Boffi, Franco Brezzi and Michel Fortin, Mixed Finite Element Methods and Applications, Springer Series in Computational Mechanics, 2013

Franco Brezzi and Michel Fortin, *Mixed and Hybrid Finite Element Methods*, Springer Series on Computational Mathematics, 1991, 350 pages

Journal Articles:

- Brezzi F. On the existence uniqueness and approximation of saddle-point problems arising from Lagrange multipliers. *RAIRO*, R2, Aout 1974.
- Brezzi, F., Raviart, P.A.: Mixed finite element method for 4th order elliptic equations. Rapport interne no. 9. Palaiseau: Ecole Polytechnique, 1976
- Brezzi, F.: Finite element approximation of the Von Karman equations. *RAIRO, Anal. Numérique*12, 303–312, 1978
- Brezzi, F., Rappaz, J., Raviart, P.A.: Finite dimensional approximation of non linear problems. Part I: Branches of non singular solutions. Rapport interne no. 52. Palaiseau: Ecole Polytechnique 1979. Part II: Limit points. Rapport interne no. 64. Palaiseau: Ecole Polytechnique 1980. Part III: Simple bifurcation points. Rapport interne no. 65. Palaiseau: Ecole Polytechnique 1980
- Brezzi, F., Cornalba, M., Di Carlo, A., How to get around a simple quadratic fold, *Numer. Math*, 48, pp. 417–427, 1986.
- Hughes TJR, Brezzi F. On drilling degrees of freedom. *Computer Methods in Applied Mechanics and Engineering* 1989; 72:105-121.
- Hughes TJR, Brezzi F, Masud A, Harari I. Finite elements with drilling degrees of freedom: theory and numerical evaluations. In *Proceedings of the Fifth International Symposium on Numerical Methods in Engineering*, vol. 1. Gruber R, Periaux J, Shaw RP (eds). Springer: Berlin, 1989; 3-17.
- Bathe, K. J., Brezzi, F. and Cho, S. W. (1989) The MITC7 and MITC9 plate bending elements. *Computers and Structures*, 32 (3/4), 797–814.
- F. Brezzi, K. J. Bathe, and M Fortin. Mixed-interpolated elements for Reissner-Mindlin plates. *International Journal for Numerical Methods in Engineering*, 28:1787–1801, 1989.
- F. Brezzi, M. Fortin, R. Stenberg, Error analysis of mixed-interpolated elements for Reissner-Mindlin plates. *Math. Models Methods Appl. Sci.*, 1, 125–151, 1991.