

## Carlo Lovadina's curriculum vitae



**Date and Place of Birth:** July, 4, 1969, Milan, Italy

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### HIGHLIGHT

**European Project:** [Towards Enhanced Integration of Design and Production in the Factory of the Future through Isogeometric Technologies](#) (TERRIFIC)

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### Scientific Interests:

- Finite Element Methods for problems in Structural Mechanics
  - Galerkin approximation of large deformation elasticity problems
  - Isogeometric Analysis
  - Virtual Element Methods
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### Current position:

- (2012-) Professor in Numerical Analysis, [Dipartimento di Matematica](#), [Universita` di Pavia](#)
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### Academic degrees:

- (1993) Laurea in Matematica, [Universita` di Pavia](#)
  - (1999) PhD in Mathematics, [Universita` di Milano](#)
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**TEACHING ACTIVITY:** Courses of Mathematical Analysis and Numerical Analysis at the University of Trento (Engineering Faculty), University of Verona (Sciences Faculty), and University of Pavia (Engineering Faculty).

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## SELECTED PUBLICATIONS

- C. Chinosi and C. Lovadina, *Numerical analysis of some mixed finite element methods for Reissner-Mindlin plates*, *Comput. Mechanics*, 16(1), 1995, 36-44.
- C. Lovadina, *A new class of mixed finite element methods for Reissner-Mindlin plates*, *SIAM J. Numer. Anal.*, (33)6, 1996, 2457-2467.
- D. Boffi and C. Lovadina *Analysis of new augmented Lagrangian formulations for mixed finite element schemes*, *Numer. Math.*, 75, 1997, 405-419.
- C. Lovadina, *Analysis of a mixed finite element method for Reissner-Mindlin plate problem*, *Comput. Methods Appl. Mech. Engrg.*, 163, 1998, 71-85.
- C. Baiocchi and C. Lovadina, *A shell classification by Interpolation*, *Mathematical Models and Methods in Applied Sciences*, (12)10, 2002, 1359-1380.
- C. Lovadina, *A low-order nonconforming finite element for Reissner-Mindlin plates*, *SIAM J. Numer. Anal.*, 42, 2005, 2688-2705.
- F. Auricchio, L. Beirão da Veiga, C. Lovadina and A. Reali, *A Stability Study of some Mixed Finite Elements for Large Deformation Elasticity Problems*, *Comput. Methods Appl. Mech. Engrg.*, 194, 2005, 1075-1092.
- C. Lovadina and R. Stenberg, *Energy norm a posteriori error estimates for mixed finite element methods*, *Math. Comp*, 75, 2006, 1659-1674.
- L. Beirão da Veiga and C. Lovadina, *An Interpolation Theory approach to shell eigenvalue problems*, *Mathematical Models and Methods in Applied Sciences*, 18, 2008, 2003-2018.
- F. Auricchio, L. Beirão da Veiga, A. Buffa, C. Lovadina, A. Reali and G. Sangalli, *A fully "locking-free" isogeometric approach for plane linear elasticity problems: a stream function formulation*, *Comput. Methods Appl. Mech. Engrg.*, 197, 2007, 160-172.
- F. Auricchio, L. Beirão da Veiga, C. Lovadina and A. Reali, *The importance of the exact satisfaction of the incompressibility constraint in nonlinear elasticity: mixed FEMs versus NURBS-based approximations*, *Comput. Methods Appl. Mech. Engrg.*, 199, 2010, 314-323.
- C. Lovadina, L.D. Marini, *A-Posteriori error estimates for discontinuous Galerkin approximations of second order elliptic problems*, *Journal of Scientific Computing*, 40, 2009, 340-359.
- L. Beirão da Veiga, C. Lovadina, A. Reali, *Avoiding shear locking for the Timoshenko beam problem via Isogeometric collocation methods*, *Comput. Methods Appl. Mech. Engrg.*, 241, 2012, 38-51.
- P.F. Antonietti, L. Beirão da Veiga, C. Lovadina, M. Verani, *Hierarchical a posteriori error estimators for the mimetic discretization of elliptic problems*, *SIAM J. Numer. Anal.*, 51(1), 2013, 654-675.

## Survey

F. Auricchio, F. Brezzi and C. Lovadina, *Mixed Finite Element Methods*, in *Encyclopedia of Computational Mechanics, Vol. 1 - Chapter 9*, Wiley and Sons. Editors: E. Stein, R. de Borst, T.J.R. Hughes, 2004.