

Curriculum vitae

Antonio Bilotta

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Name Antonio Bilotta
Position Assistant Professor in Solid Mechanics (Scienza delle costruzioni, ICAR/08) Unical (Italy)
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EDUCATION

1999 PhD in Computational Mechanics, University of Calabria (Italy).
1995 Degree in Civil Engineering, final rank *110/110 cum laude*, University of Calabria (Italy).

POSITIONS

2019-present National Scientific Qualification as Full Professor in Solid Mechanics.
2017-present National Scientific Qualification as Associate Professor in Solid Mechanics.
2005-present Assistant Professor in Solid Mechanics, University of Calabria (Italy).
2001-2005 Research fellow in *Computational strategies for the nonlinear analysis of structures*, contract n. 113, University of Calabria (Italy).
1999-2001 Postdoctoral research fellow, University of Calabria (Italy).

PARTECIPATION IN RESEARCH PROJECTS

2019-present Prin 2017 project no. 2017J4EAYB, leader Prof. Fernando Fraternali. *Multiscale innovative materials and structures (MIMS)*.
2015 MADAR (POR FESR), project no. J85G09000350002, leader Prof. Margerita Solci. *Mathematical models for the simulation of structural degradation phenomena in archaeological areas*, <https://rinnovarelatutela.wordpress.com/madar/>.
2013-2016 Prin 2010-11 project no. 2010NRBMTP, leader Prof. Raffaele Casciaro. *Models and algorithms for non-linear analysis of structures and validation of performance-based design rules*.
2008-2010 Prin 2007 project no. 20072JZL8K, leader Prof. Raffaele Casciaro. *Performance-based modeling and analysis of non-linear structures*.
2006-2007 Prin 2005 project no. 2005083412, leader Prof. Cesare Davini. *Modeling and approximation techniques in advanced problems of materials and structure mechanics*.
2004-2005 Prin 2003 project, leader Prof. Antonino Morassi. *Non-destructive methods for identifying and diagnosing materials and structures*.
2004-2005 Prin 2003 project no. 2003082318, leader Prof. Raffaele Casciaro. *Definition of integrated methods for the structural assessment of masonry buildings*.

2002-2005	Academy of Finland project no. 55375, leader Prof. Jukka Tuhkuri. <i>A thermomechanics based fracture assessment method for structural components.</i>
1999-2000	Prin 1998 project no. 9808052678, leader Prof. Raffaele Casciaro. <i>Development of an integrated strategy for the modeling, analysis and assessment of masonry constructions.</i>
1998-2001	POP 94/99 MECOM project “Misura 4.4 - Ricerca scientifica e tecnologica”, leader Prof. Raffaele Casciaro. <i>Development and application of computational mechanics in structural design in civil and industrial fields.</i>
1996-2000	Brite Euram project no. BRPR-CT96-0202, leader Bruno Berà. <i>Advanced PRImary COmposites Structures - APRICOS.</i>

RESEARCH TOPICS

- Mixed finite element formulations [5, 7, 16, 20, 24].
- Other high performance FEM models for structural analysis [17, 23].
- Enhanced beam models [2, 9, 10, 11, 12, 13, 14].
- Elastoplastic analysis of structures [2, 4, 5, 7, 15, 16, 20].
- Models for masonries [25, 4].
- Crack growth problems [23].
- Inverse problems [1, 3, 6, 8, 18, 19, 21, 22].

PUBLISHING ACTIVITIES FOR INTERNATIONAL JOURNALS

- Member of the editorial board of the journal *Mathematical Problems in Engineering*, <https://www.hindawi.com/journals/mpe/editors/> (starting from July 12, 2016).
- Reviewer for the following journals:
 - *Computers & Structures*,
 - *Finite Elements in Analysis & Design*,
 - *Meccanica*,
 - *International Journal of Solids and Structures*,
 - *Computers and Mathematics with Applications*.

TEACHING

2018-present	Lecturer of the course in <i>Solid Mechanics</i> for the Bachelor Degree in <i>Food Engineering</i> , University of Calabria.
2015-2017	Lecturer of the course in <i>Solid Mechanics</i> for the Bachelor Degree in <i>Technologies for the Conservation and Restoration of Cultural Heritage</i> , University of Calabria.
2015	Lecturer of the course in <i>FEM analysis of composite structures</i> , Post-graduate course at University of Naples 2.
2014	Lecturer of the course in <i>Dynamics of Structures</i> for the Master Degree in <i>Civil Engineering</i> , University of Calabria.
2011-2013	Lecturer of the course in <i>Computational Mechanics of Structures</i> for the Master Degree in <i>Civil Engineering</i> , University of Calabria.
2011-2013	Tutor of the course in <i>Theory of Structures</i> for the Master Degree in <i>Civil Engineering</i> , University of Calabria.

2007-2010	Lecturer of the course in <i>Solid Mechanics</i> for the Bachelor Degree in <i>Chemical Engineering</i> , University of Calabria.
2004-2010	Tutor of the course in <i>Solid Mechanics 2</i> for the Bachelor Degree in <i>Civil Engineering</i> , University of Calabria.
2003-2010	Tutor of the course in <i>Inelastic Analysis of Structures</i> for the Master Degree in <i>Civil Engineering</i> , University of Calabria.
2002-2006	Tutor of the course in <i>Theory of Structures</i> for the Master Degree in <i>Civil Engineering</i> , University of Calabria.
2007	Lecturer of the seminar in <i>Computational Modeling of Inelastic structures</i> , University of Basilicata.
2007	Lecturer of the seminar in <i>Damage Models for the FEM analysis of masonry</i> , University of Basilicata.
2004	Lecturer of the course in <i>Computational methods with FEM</i> for the Master Degree in <i>Civil Engineering</i> , University of Basilicata.
2003	Lecturer of the seminar in <i>FEM formulations for Structural Analysis</i> , University of Basilicata.
2002	Lecturer of the course in <i>Introduction to FEM</i> , Post-graduate course at University of Basilicata.

OTHER ACADEMIC ROLES

2018-present	Member of the Department Board (Department of Informatics, Modeling, Electronics and System Engineering - DIMES) at University of Calabria.
2013-present	Member of teaching staff of the Doctorate in “SCIENZE E TECNOLOGIE FISICHE, CHIMICHE E DEI MATERIALI” at University of Calabria, http://www.fis.unical.it/news.php?nid=1217#.XaXojC-B1yp .
2009-2012	Secretary of Study Programs in Civil Engineering at University of Calabria.
2008-2013	Member of teaching staff of the Doctorate in “SCUOLA DI SCIENZA E TECNICA BERNARDINO TELESIO” at University of Calabria.
2006-2008	Member of teaching staff of the Doctorate in “SCUOLA DI DOTTORATO INTERNAZIONALE HARD SCIENCES BERNARDINO TELESIO” at University of Calabria.

SUPERVISOR ACTIVITY

2019	Sabina Mandaglio, Master Degree thesis keywords: <i>concrete materials, plasticity-based models</i> .
2010	Antonio L. Mendicino, PhD thesis keywords: <i>timber structures, moisture-stress, fracture</i> .
2008	Francesco Pasculli, Master Degree thesis keywords: <i>Hybrid FEM, Krylov methods, large structures</i> .
2007	Antonio L. Mendicino, Master Degree thesis keywords: <i>High continuity FEM, 3D elastic solids, ABAQUS</i> .
2005	Marialaura Malena, PhD thesis keywords: <i>brittle materials, mixed FEM</i> .
2003	Maria Grazia D'Aquila, Master Degree thesis keywords: <i>plasticity, holonomic path, Cam-clay</i> .
2001	Francesco Porco, PhD thesis keywords <i>Cosserat continuum, PUFEM</i> .
2001	Giampaolo Armentano, Master Degree thesis keywords: <i>plasticity, soils</i> .
1998	Francesco Porco, Master Degree thesis keywords: <i>Hybrid FEM</i> .

COMPUTER SOFTWARE SKILLS

- C, C++. Optimal knowledge of C and C++ programming languages with FEM software development experiences,

also in collaborative environments, with linux, mac and windows OSs.

- **Scientific computing libraries and environments.** Development of FEM software using gsl, petsc, slepc, mtl4 and mpi libraries. Beowulf cluster experiences. Experiences in using MATLAB, Mathematica, Maple and Sage.
- **FEM tools.** Experience of ABAQUS, Adina, Midas and gmsh softwares.
- **Other programming languages.** Knowledge and experience of html, php, RDBS systems (MySQL), FORTRAN.

RELEVANT EXPERIENCES IN THE IMPLEMENTATION OF SOFTWARE TOOLS FOR THE NONLINEAR ANALYSIS OF STRUCTURES

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|---------------------|---|
| 2016-present | Beam software. C++ code for the two-level FEM analysis of framed structures [2]. Non-linear behaviour of the material modelled at the cross-section level with the possibility of describing generic composite materials. Code builded on the Gmsh, PETSc and SLEPc C libraries and open to the two-level analysis of other structural models. |
| 2014-2015 | TEAM (Tetrahedral Elements Analysis of Masonries) software. C++ code for the FEM analysis of generic 3D constructions constituted by chaotic masonries. Code builded on the Gmsh, PETSc and SLEPc C libraries and interfaced with laser-scanner output for the geometrical description of constructions (MADAR project). |
| 2004-2005 | MPI C++ code for intensive computations on Beowulf cluster [22, 21]. |
| 2001 | Implementation of C and C++ libraries for the application of computational mechanics in structural design in civil and industrial fields (MECOM project). |
| 1996-2000 | KASP (Koiter Analysis of Slender Panels) software. C++ code for the FEM analysis of extruded composite panels modelled by using High Continuity finite elements for geometry and Koiter asymptotic approach to describe the structural nonlinear response. Prototipe software with Windows graphical user interface (APRICOS project). |
| 1995-1996 | Experience as programmer in Newsoft, engineering software house founded in 1979. |
| 1994-1995 | C++ coded software with Windows 3.1 graphical user interface for the FEM analysis of soils modelled as 2D domains with Cam-clay elasto-plastic response (Master Thesis “Analisi di continui elasto-plastici in condizione di deformazione piana in campo geotecnico”). |

ARTICLES - 25

- [1] Bilotta A., Morassi A., Rosset E., Turco E., Vessella S., Numerical size estimates of inclusions in Kirchhoff-Love elastic plates, *International Journal of Solids and Structures*, 168 (2019) 58-72, doi 10.1016/j.ijsolstr.2019.03.006.
- [2] Bilotta A., Garcea G., A two-level computational approach for the elasto-plastic analysis of framed structures with composite cross-sections, *Composite Structures*, 209 (2019) 192-205, doi 10.1016/j.compstruct.2018.10.056.
- [3] Bilotta A., Morassi A., Turco E., The use of quasi-isospectral operators for damage detection in rods, *Meccanica*, 53(1-2) (2018) 319-345, doi 10.1007/s11012-017-0728-8.
- [4] Tedesco F., Bilotta A., Turco E., Multiscale 3D mixed FEM analysis of historical masonry constructions, *European Journal of Environmental and Civil Engineering*, 21(7-8) (2017) 772-797, doi 10.1080/19648189.2015.1134676.
- [5] Bilotta A., Turco E., Elastoplastic analysis of pressure-sensitive materials by an effective three-dimensional mixed finite element, *ZAMM Zeitschrift für Angewandte Mathematik und Mechanik*, 97(4) (2017) 382-396, doi 10.1002/zamm.201600051.
- [6] Bilotta A., Turco E., Numerical sensitivity analysis of corrosion detection, *Mathematics and Mechanics of Solids*, 22(1) (2017) 72-88, doi 10.1177/1081286514560093.
- [7] Bilotta A., Garcea G., Leonetti L., A composite mixed finite element model for the elasto-plastic analysis of 3D structural problems, *Finite Elements in Analysis and Design*, 113 (2016) 43-53.

- [8] Bilotta A., Morassi A., Turco E., Reconstructing blockages in a symmetric duct via quasi-isospectral horn operators, *Journal of Sound and Vibration*, 113 (2016) 149-172, doi 10.1016/j.jsv.2015.12.038.
- [9] Garcea G., Goncalves R., Bilotta A., Manta D., Bebiano R., Leonetti L., Magisano D., Camotim D., Deformation modes of thin-walled members: A comparison between the method of Generalized Eigenvectors and Generalized Beam Theory, *Thin-Walled Structures*, 100 (2016) 192-212, doi 10.1016/j.tws.2015.11.013.
- [10] Genoese A., Genoese A., Bilotta A., Garcea G., Buckling analysis through a generalized beam model including section distortions, *Thin-Walled Structures*, 85 (2014) 125-141, doi 10.1016/j.tws.2014.08.012.
- [11] Genoese A., Genoese A., Bilotta A., Garcea G., A geometrically exact beam model with non-uniform warping coherently derived from the Saint Venant rod, *Engineering Structures*, 68 (2014) 33 - 46, doi: 10.1016/j.engstruct.2014.02.024
- [12] Genoese A., Genoese A., Bilotta A., Garcea G., A composite beam model including variable warping effects derived from a generalized Saint Venant solution, *Composite Structures*, 110 (1) (2014) 140 - 151, doi: 10.1016/j.compstruct.2013.11.020
- [13] Genoese A., Genoese A., Bilotta A., Garcea G., A generalized model for heterogeneous and anisotropic beams including section distortions, *Thin-Walled Structures*, 74 (2014) 85-103, doi 10.1016/j.tws.2013.09.019.
- [14] Genoese A., Genoese A., Bilotta A., Garcea G., A mixed beam model with non-uniform warpings derived from the Saint Venant rod, *Computers and Structures*, 121 (2013) 87-98.
- [15] Bilotta A., Leonetti L., Garcea G., An algorithm for incremental elastoplastic analysis using equality constrained sequential quadratic programming, *Computers and Structures*, 102-103 (2012) 97-107.
- [16] Bilotta A., Leonetti L., Garcea G., Three field finite elements for the elastoplastic analysis of 2D continua, *Finite Elements in Analysis & Design*, 47 (2011) 1119-1130.
- [17] Bilotta A., Formica G., Turco E., Performance of a high-continuity finite element in three-dimensional elasticity, *International Journal for Numerical Methods in Biomedical Engineering*, 26 (2010) 1155-1175 .
- [18] Bilotta A., Turco E., A numerical study on the solution of the Cauchy problem in elasticity, *International Journal of Solids and Structures*, 46 (2009) 4451-4477.
- [19] Alessandrini G., Bilotta A., Morassi A., Rosset E., Turco E., Computing volume bounds of inclusions by EIT measurements, *Journal of Scientific Computing*, 33 (2007) 293-312.
- [20] Bilotta A., Casciaro R., A high performance element for the analysis of 2D elastoplastic continua, *Comput. Methods Appl. Mech. Engrg.*, 196 (2007) 818-828.
- [21] Alessandrini G., Bilotta A., Formica G., Morassi A., Rosset E., Turco E., Evaluating the volume of hidden inclusions in an elastic body, *Journal of Computational and Applied Mathematics*, 198 (2007) 288-306.
- [22] Alessandrini G., Bilotta A., Formica G., Morassi A., Rosset E., Turco E., Numerical size estimates of inclusions in elastic bodies, *Inverse Problems*, 21 (2005) 133-151.
- [23] Fortino S., Bilotta A., Evaluation of the amount of crack growth in 2D LEFM problems, *Engineering Fracture Mechanics*, 71/9-10 (2004) 1403-1419.
- [24] Bilotta A., Casciaro R., Assumed stress formulation of high order quadrilateral elements with an improved in-plane bending behaviour, *Comput. Methods Appl. Mech. Engrg.*, 191/15-16 (2002) 1523-1540.
- [25] Salerno G., Bilotta A., Porco F., A finite element with micro-scale effects for the linear analysis of brick masonry structures, *Comput. Methods Appl. Mech. Engrg.*, 190/34 (2001) 4365-4378.

INTERNATIONAL CONFERENCE CONTRIBUTIONS - 28

- [26] Bilotta A., Morassi A., Turco E., Quasi-isospectral Sturm-Liouville operators and applications to system identification, 10th International Conference on Structural Dynamics, EURODYN 2017, Rome, September 10-13 2017.

- [27] Bilotta A., Morassi A., Turco E., Damage identification in longitudinally vibrating rods based on quasi-isospectral operators, 8th European Workshop on Structural Health Monitoring, EWSHM 2016, Bilbao, July 5-8 2016.
- [28] D. Magisano, L. Leonetti, A. Bilotta and G. Garcea, A Geometrical Exact Three-Dimensional Beam Model including the Effects of Section Distortions, Fifteenth International Conference on Civil, Structural and Environmental Engineering Computing, Prague, September 1-4, 2015.
- [29] G. Garcea, R. Goncalves, A. Bilotta, D. Manta, R. Bebiano, L. Leonetti, D. Magisano and D. Camotim, Thin-walled Member Linear and Buckling Analysis: A Comparison between GBT and GE, ICASS 2015, Lisbon, 21-24 July, 2015.
- [30] Genoese A., Genoese A., Bilotta A., Garcea G., A Nonlinear Model for the Analysis of Composite Beams including Warping, CST2014, Naples, 2-5 September, 2014.
- [31] Leonetti L., Bilotta A., Garcea G., Efficient Shakedown Analysis of Reinforced Concrete Three-Dimensional Frames subject to a Large Number of Loads, CST2014, Naples, 2-5 September, 2014.
- [32] Genoese A., Genoese A., Bilotta A., Garcea G., A general model for the nonlinear analysis of beams including the effects of section distortions, WCCM XI, Barcelona, 20-25 July, 2014.
- [33] Leonetti L., Bilotta A., Garcea G., Casciaro R., Shakedown analysis of 3D frames with an effective treatment of the load combinations, WCCM XI, Barcelona, 20-25 July, 2014.
- [34] Ronchetti C., Salerno G., Bilotta A., A PUFEM model for glass strength in stress-corrosion regime, Proceedings of the Challenging Glass 4 and Cost Action TU0905 Final Conference, 707-716 (2014).
- [35] Bilotta A., Garcea G., Leonetti L., An efficient numerical method for shakedown analysis, XII International Conference on Computational Plasticity, Barcellona, September 7-9, COMPLAS 2013.
- [36] A. Genoese, A. Genoese, A. Bilotta and G. Garcea, A General Model for the Analysis of Beams Including Warping Effects, Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing, Cagliari, September 3-6, 2013.
- [37] Garcea G., Genoese A., Genoese A., Bilotta A., Sensitivity Analysis of thin-walled structures using Koiter Asymptotic Method, Proceedings 6th International CIMS Conference, Glasgow December 3-5, 2012.
- [38] Garcea G., Bilotta A., Genoese A., Genoese A., A geometrically exact beam model with nonuniform warping coherently derived from the Saint Venant rod, ECCOMAS 2012, Vienna, September 10-14, 2012.
- [39] Genoese A., Genoese A., Bilotta A., Garcea G., Mathematical modeling of thin-walled beams and FEM applications, Proc. 38th SolMech Conference, Warsaw, August 27-31, 2012.
- [40] Bilotta A., Garcea G., Leonetti L., A nonlinear algorithm for the analysis of elastoplastic structures modelled with mixed finite elements, Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing, Chania Crete, September 6-9, 2011.
- [41] Bilotta A., Garcea G., Leonetti L., A mixed algorithm for incremental elastoplastic analysis, XI International Conference on Computational Plasticity, Barcellona, September 7-9, COMPLAS 2011.
- [42] Bilotta A., Garcea G., Leonetti L., Mixed finite elements with enhanced plastic behavior, Proc. of the Tenth International Conference on Computational Structures Technology CST2010, Valencia, September 14-17, 2010.
- [43] Bilotta A., Garcea G., Leonetti L., Plastically enriched assumed stress finite elements, Proc. Congress ECCM 2010, Paris, May 16-21, 2010.
- [44] Bilotta A., Turco E., Sensitivity to measured data in corrosion detection problem, Proc. Congress WCCM08 - ECCOMAS 2008, Venezia, June 30 - July 5, 2008.
- [45] Alessandrini G., Bilotta A., Morassi A., Rosset E., Turco E., Size detection of buried inclusions by Electrical Impedance Tomography, Proc. Congress CMM 2007, Lodz-Spala (Poland), June 19-22, 2007.
- [46] Bilotta A., Turco E., Influence of data-unknown ratio on the solution of Cauchy problems, Proc. Congress CMM 2007, Lodz-Spala (Poland), June 19-22, 2007.

- [47] Malena M., Bilotta A., Lanzo A. D., Nonlinear analysis of brittle materials, Proc. Congress ECCM 2006, Lisbon, June 5-9, 2006.
- [48] Bilotta A., Casciaro R., Lanzo A. D., Mixed finite elements for the elastoplastic analysis of 2D continua, Proc. Congress ECCOMAS 2004, Jyvaskyla, July 24-28, 2004.
- [49] Fortino S., Bilotta A., An incremental elastic-plastic analysis for 2D fracture mechanics problems, Proc. Congress ECCOMAS 2004, Jyvaskyla, July 24-28, 2004.
- [50] Fortino S., Bilotta A., A finite increment formulation of the coupled displacement-crack propagation problem in elastic fracture, Proc. 34th SolMech Conference, Zakopane, September 2-7, 2002.
- [51] Bilotta A., Porco F., Salerno G., An enhanced finite element for the analysis of 2D Cosserat continua, Proc. Congress ECCM 2001, June Cracovia, 26-29, 2001.
- [52] Bilotta A., Lanzo A. D., Casciaro R., A finite element model for the Koiter nonlinear analysis of composite thin-walled structures, Proc. Congress ECCOMAS 2000, Barcellona, September 11-14, 2000.
- [53] Bilotta A., Porco F., Casciaro R., Formulation of high performance plane elements by the hybrid stress approach, Proc. Congress ECCOMAS 2000, Barcellona, September 11-14, 2000.

NATIONAL CONFERENCE CONTRIBUTIONS - 26

- [54] Bilotta A., Turco E., Micro-level analysis and Representative Volume Element (RVE) characterization of chaotic masonry materials, INdAM Workshop MACH2019 Mathematical modeling and Analysis of degradation and restoration in Cultural Heritage, Rome, 25-29 March, 2019.
- [55] Bilotta A., Garcea G., Inelastic analysis of framed structures with generic cross-sections, Atti AIMETA - XXII Convegno Italiano di Meccanica Computazionale, Ferrara, 13-14 Settembre, 2018.
- [56] Bilotta A., Causin A., Solci M., Turco E., Analysis of historical masonry constructions through computational homogenization, XXIII Biannual Congress SIMAI 2016, Milano, 13-16 Settembre, 2016.
- [57] G. Garcea, R. Goncalves, A. Bilotta, D. Manta, R. Bebiano, L. Leonetti, D. Magisano and D. Camotim, Comparison between GBT and GE in linear and buckling analyses of thin-walled beams, AIMETAXXII 2015, Genova, 14-17 Settembre, 2015.
- [58] Genoese A., Genoese A., Bilotta A., Garcea G., Buckling analysis using a generalized beam model including section distortions, Atti AIMETA - XX Convegno Italiano di Meccanica Computazionale, Cassino, 11-13 Giugno, 2014.
- [59] Leonetti L., Bilotta A., Garcea G., Casciaro R., Shakedown analysis of 3D frames with an effective evaluation of the elastic domain and of the load conditions, Atti AIMETA - XX Convegno Italiano di Meccanica Computazionale, Cassino, 11-13 Giugno, 2014.
- [60] Genoese A., Genoese A., Bilotta A., Garcea G., A general model for the analysis of composite beams including warping effects, Atti del XXI Congresso AIMETA, Torino, 17-20 Settembre, 2013.
- [61] Genoese A., Genoese A., Bilotta A., Garcea G., A mixed finite element of beam with nonuniform warping based on exact shape functions, Atti AIMETA - XIX Convegno Italiano di Meccanica Computazionale, Rossano, 25-27 Giugno, 2012.
- [62] Leonetti L., Bilotta A., Aristodemo M., Modellazione dell'evoluzione di una fessura in solidi elastici, Atti AIMETA - XIX Convegno Italiano di Meccanica Computazionale, Rossano, 25-27 Giugno, 2012.
- [63] Leonetti L., Bilotta A., Aristodemo M., Analisi ad elementi di contorno di problemi di frattura, Atti del XX Congresso AIMETA, Bologna, 12-15 Settembre, 2011.
- [64] Bilotta A., Garcea G., Leonetti L., Un algoritmo di tipo misto per l'analisi incrementale in campo elasto-plastico, Atti del XX Congresso AIMETA, Bologna, 12-15 settembre, 2011.

- [65] Bilotta A., Garcea G., Leonetti L., Mixed formulation of plastic multi-surface finite elements, Atti AIMETA - XVIII Convegno Italiano di Meccanica Computazionale, Siracusa, 22-24 settembre, 2010.
- [66] Bilotta A., Turco E., Some awkward issues in the solution of Cauchy problems: a numerical experimentation, Atti AIMETA - XVII Convegno Italiano di Meccanica Computazionale, Alghero, 10-12 settembre, 2008.
- [67] Bilotta A., Turco E., Hybrid FEM formulations for the parallel solution of elliptic problems, Atti del XVII Congresso AIMETA, Brescia, 11-14 settembre, 2007.
- [68] Bilotta A., Davini C., Turco E., Implementazione di un elemento finito discontinuo alla Galerkin, Atti AIMETA - XVI Convegno Italiano di Meccanica Computazionale, Bologna, 26-28 giugno, 2006.
- [69] Lanzo A. D., Bilotta A., Un approccio misto per l'analisi path-following di telai elastici piani geometricamente non lineari a grande deformabilità tagliante, Atti AIMETA - XVI Convegno Italiano di Meccanica Computazionale, Bologna, 26-28 giugno, 2006.
- [70] Bilotta A., Formica G., Morassi A., Turco E., Identificazione di difetti da prove di conducibilità elettrica, Atti del XVII Congresso AIMETA, Firenze, 11-15 settembre, 2005.
- [71] Bilotta A., Malena M., Casciaro R., Lanzo A. D., Analisi di pannelli murari mediante una formulazione FEM di tipo misto, Atti del XVII Congresso AIMETA, Firenze, 11-15 settembre, 2005.
- [72] Bilotta A., Formica G., Morassi A., Turco E., Stime numeriche del volume di inclusioni all'interno di corpi elastici, Atti AIMETA - XV Convegno Italiano di Meccanica Computazionale, Genova, 21-23 giugno, 2004.
- [73] Bilotta A., Casciaro R., Lanzo A. D., Discrete planes formulation of mixed finite elements for the analysis of 2D elastoplastic solids, Atti AIMETA - XV Convegno Italiano di Meccanica Computazionale, Genova, 21-23 giugno, 2004.
- [74] Bilotta A., Lanzo A. D., Casciaro R., Un elemento finito di tipo assumed stress per l'analisi in campo plastico, Atti del XVI Congresso AIMETA, Ferrara, 9-12 settembre, 2003.
- [75] Fortino S., Bilotta A., A coupled displacement-crack growth analysis for 2D problems of LEFM, VIII Suomen mekaniikkapaivat, Espoossa Finland, 12-13 giugno, 2003.
- [76] Bilotta A., Porco F., Salerno G., A Partition of Unity finite element model for the analysis of masonry panels, Atti del XV Congresso AIMETA, Taormina, 26-28 settembre, 2001.
- [77] Bilotta A., Porco F., Salerno G., An enhanced mixed finite element for the analysis of Cosserat continua, Atti AIMETA - XIII Convegno Italiano di Meccanica Computazionale, Brescia, 13-15 novembre, 2000.
- [78] Bilotta A., Lanzo A. D., Casciaro R., Un modello FEM per l'analisi nonlineare alla Koiter di strutture a parete sottile in materiale composito, Atti della XIV Conferenza AIMETA, Villa Olmo Como, 6-9 ottobre, 1999.
- [79] Bilotta A., Porco F., Casciaro R., Elementi Flex per l'analisi di stati piani di tensione, Atti del XI Convegno Italiano di Meccanica Computazionale, Università degli Studi di Trento, 13-15 Luglio, 1998.

BOOKS

- Turco E., Casciaro R., Bilotta A., Porco F., Formica G., Scienza delle costruzioni, McGraw-Hill, Milano, 2004.