

CLAUDIA COMI - CURRICULUM VITAE ET STUDIORUM

PERSONAL DATA

Date of birth October 15th 1963
Marital Status Married, one daughter and one son
Nationality Italian
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CURRENT POSITION

Full professor of Structural Mechanics at Politecnico di Milano, School of Civil and Environmental Engineering.

EMPLOYMENT

2002 – today Full Professor of Structural Mechanics at Politecnico di Milano
July 2004 Visiting Professor at Northwestern University (USA)
1998 – 2002 Associate Professor of Structural Mechanics at Politecnico di Milano, Faculty of Architecture Leonardo
July 1999 Visiting Professor at Université Paris VI (France)
February 1997 Visiting Professor at Ecole Normale Supérieure de Cachan (France)
July 1996 Visiting Professor at Ecole Normale Supérieure de Cachan (France)
Dec 1991 – Oct 1992 Research fellow at Laboratoire de Mécanique et Technologie Cachan (France)
1991 – 1998 Assistant Professor of Structural Mechanics at Politecnico di Milano, Department of Structural Engineering

EDUCATION

April 1988 Laurea (MS) *cum laude* in Civil Engineering - Politecnico di Milano.
July 1981 Bachelor in Fine Arts, Liceo Artistico Orsoline of Milan.

TEACHING ACTIVITIES

Courses of Statics and Strength of materials for undergraduate students in Architecture and Engineering, courses of Mechanics of materials and Computational mechanics for master students in Engineering and course of Damage Mechanics for Ph.D. students, short courses for Engineers (permanent education program) at Politecnico di Milano.

RESEARCH FIELDS

Mechanics of materials and computational mechanics. Shakedown and bounding theory. Elasto-plastic models, damage and chemo-damage models; strain localisation phenomena in quasi-brittle materials; regularising methods and nonlocal models; instability and bifurcation in two-phase materials; failure analysis methods with applications to dam engineering. Mechanical characterisation of silicon at the microscale. Design and reliability of MEMS. Locally resonant metamaterials for energy absorption.

JOURNAL EDITORIAL ACTIVITIES

Associate Editor of *Meccanica* from 2012

Member of the International Advisory Board of the Latin American Journal of Solids and Structures from 2003

CONFERENCE COMMITTEES

Member of local organizing committee of the 8th. World Congress on Computational Mechanics (WCCM8) and the 5th. European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice (Italy), 30 June - 4 July 2008

Member of international scientific committee of the 4th ECCM 2010 Paris (France), May 2010.

Member of international scientific committee of the 2nd International Conference on Damage Mechanics (ICDM2) University of Technology of Troyes (France), 8 - 10 July 2015.

Member of international scientific committee of the 8th International Conference on Concrete Under Severe Conditions-Environment & Loading (CONSEC 2016), Lecco (Italy), 12-14 September 2016.

Mini-symposium organizer (with Jean-Jacques Marigo) "Recent Advances in Damage Mechanics" in 9th European Solid Mechanics Conference (ESMC 2015), Madrid (Spain), 6 - 10 July 2015.

Session organizer (with Bert Sluys) "Failure of quasi-brittle materials" in the European Mechanics of Materials Conference (EMMC15), Brussels (Belgium), September 7th-9th, 2016.

Member of international scientific committee of the CSMA 2017, 13^{ème} colloque national en calcul des structures, Giens, France. 15-19 May 2017.

Member of international scientific committee of the ECCM-ECDF 2018, joint 6th European Conference on Computational Mechanics (Solids, Structures and Coupled Problems) (ECCM 6) and 7th European Conference on Computational Fluid Dynamics (ECFD 7) Glasgow, UK. 11-15 June 2018.

Mini-symposium organizer (with Jean-Jacques Marigo) "Recent Advances in Damage Mechanics" in 10th European Solid Mechanics Conference (ESMC 2018), in Bologna, July 2-6, 2018.

Session organizer (with Bert Sluys) "Failure of quasi-brittle materials" in the 16th European Mechanics of Materials Conference (EMMC16), Nantes (France), March 26-28, 2018.

OTHERS

From 2014 Member of the « Commission de recrutement de Mécanique » of the Ecole Polytechnique, Université Paris Saclay.

LIST OF PUBLICATIONS

International Journals

- 1 C. Comi, G. Maier - Extremum theorem and convergence criterion for an iterative solution to the finite-step problem in elastoplasticity with mixed nonlinear hardening, *Eur. J. Mech., A/Solids*, **9**(6), 563-585 (1990).
- 2 C. Comi, A. Corigliano, G. Maier - Extremum properties of finite-step solutions in elastoplasticity with nonlinear mixed hardening. *Int. J. Solids Structures*, **27**, 965-981 (1990).
- 3 C. Comi, A. Corigliano - Dynamic shakedown in elastoplastic structures with general internal variable constitutive laws. *Int. J. of Plasticity*, **7**, 679-692 (1991).
- 4 C. Comi, G. Maier, U. Perego - Generalized variable finite element modeling and extremum theorems in stepwise holonomic elastoplasticity with internal variables, *Comp. Meth. in Appl. Mech. and Engng.*, **96**, 213-237 (1992).
- 5 C. Comi, G. Maier - Extremum, convergence and stability properties of the finite-increment problem in elastic-plastic boundary element analysis. *Int. J. Solids Structures*, **29**(2), 249-270 (1992).
- 6 C. Comi, A. Corigliano, G. Maier - Dynamic analysis of elastoplastic-softening discretized structures, *ASCE J. Eng. Mech.*, **118**(12), 2352-2375 (1992).
- 7 A. Benallal, C. Comi - Localization analysis via a geometrical method. *Int. J. Solids Structures*, **33**(1), 99-119 (1996).
- 8 A. Benallal, C. Comi - Closed form solutions to localization conditions for rate-independent materials, *C. R. Acad. Sci. Paris*, **318**, Série II, 7-14, (1994).
- 9 C. Comi, Y. Berthaud, R. Billardon - On localization in ductile-brittle materials under compressive loadings, *Eur. J. Mech., A/Solids*, **14**(1), 19-43, (1995).
- 10 C. Comi, U. Perego - A unified approach for variationally consistent finite elements in elastoplasticity, *Comp. Meth. in Appl. Mech. Eng.*, **121**, 323-344, (1995).
- 11 C. Comi, A. Corigliano - On uniqueness of the dynamic finite-step problem in gradient-dependent softening plasticity, *Int. J. Solids Structures*, **33**(26), 3881-3902, (1996).
- 12 C. Comi, U. Perego - A generalized variable formulation for gradient-dependent softening plasticity, *Int. J. Num. Meth. Engng*, **39**, 3731-3755, (1996).
- 13 C. Comi - Computational modelling of gradient-enhanced damage in quasi-brittle materials, *Mechanics of Cohesive-frictional Materials*, **4**(1), 17-36 (1999).
- 14 C. Comi - A nonlocal model with tension and compression damage mechanisms, *European J. Mech A/Solids*, **20**, 1-22, (2001).
- 15 A. Benallal, C. Comi - On localization in saturated porous continua, *C. R. Acad. Sci. Paris*, t. **328**, Série II b, 847-853 (2000).
- 16 C. Comi, U. Perego - Fracture energy based bi-dissipative damage model for concrete, *Int. J. Solids Structures* **38**, 6427-6454 (2001).
- 17 C. Comi, U. Perego - Numerical aspects of nonlocal damage analyses, *Revue Européenne Eléments Finis*, **10**, 227-242 (2001).
- 18 A. Benallal, C. Comi - Material instabilities in inelastic saturated porous media under dynamic loadings, *Int. J. Solids Struct*, **39**, 3693-3716 (2002).
- 19 A. Benallal, C. Comi - Quasi-static versus dynamic failure instabilities in fluid-saturated porous media, *C. R. Mecanique*, 339-345 (2002).
- 20 A. Benallal, C. Comi - Perturbation growth and localization in fluid-saturated inelastic porous media under quasi-static loadings, *J. Mech. Physics Solids*, **51**, 851-899 (2003).
- 21 A. Benallal, C. Comi - On numerical analyses in the presence of unstable saturated porous materials, *Int. J. Num. Meth. Engng*, **56**(6), 883-910 (2003).
- 22 A. Corigliano, B. De Masi, A. Frangi, C. Comi, A. Villa, M. Marchi - Mechanical characterization of epitaxial silicon through on chip tensile tests. *Journal of Microelectromechanical Systems*, **13**(2), 200-219 (2004).
- 23 C. Comi, U. Perego - Criteria for mesh refinement in nonlocal damage finite element analyses. *European J. Mech A/Solids*, **23**(4), 615-632 (2004).
- 24 A. Benallal, C. Comi - On interfacial properties in gradient damaging continua, *C. R. Mecanique*, **333**, 319-324 (2005).
- 25 L. Driemeier, C. Comi, S.P. Baroncini Proenca - On nonlocal regularization in one dimensional finite strain elasticity and plasticity. *Computational Mechanics*, **36**, 34-44 (2005).
- 26 C. Comi, L. Driemeier - A nonlocal model for size effect and localization in plasticity. *Latin American J. Solids Struct.*, **2**, 153-165 (2005).
- 27 F. Barthelat, C.-M. Li, C. Comi, H. Espinosa - Mechanical properties of nacre constituents and their impact on mechanical performance. *Journal of Materials Research*, **21**(8), 1977-1986 (2006).
- 28 C. Comi, S. Mariani, M. Negri, U. Perego - A 1D variational formulation for quasi-brittle fracture. *J. of Mech. Mat. Solids*, **1**(8), 1323-1343 (2006).
- 29 C. Comi, S. Mariani, U. Perego - An extended FE strategy for transition from continuum damage to mode I cohesive crack propagation. *Int. J. Num. An. Meth. Geomech.*, **31**(2), 213-238 (2007).

- 30 C. Comi, S. Mariani – Extended finite element simulation of quasi-brittle fracture in functionally graded materials *Comp. Meth. in Appl. Mech. Eng.* Vol **196/41-44** pp 4013-4026, (2007).
- 31 R. Ardito, C. Comi, A. Corigliano, A. Frangi – Solid damping in Micro Electro Mechanical Systems, *Meccanica*, **43**, pp 419-428 (2008).
- 32 R. Ardito, C. Comi – Nonlocal thermoelastic damping in microelectromechanical resonators, *ASCE J. Eng. Mech.*, **135**, pp. 214-220 (2009).
- 33 C. Comi, R. Fedele, U. Perego - A chemo-thermo-damage model for the analysis of concrete dams affected by alkali-silica reaction, *Mechanics of Materials*, **41**, pp. 210-230 (2009).
- 34 C. Comi – On geometrical effects in micro-resonators. *Latin American Journal of Solids and Structures*, **6**, 73-87, (2009).
- 35 C. Comi, A. Corigliano, G. Langfelder, A. Longoni, A. Tocchio, B. Simoni –A resonant micro-accelerometer with high sensitivity operating in an oscillating circuit, *Journal of Microelectromechanical Systems*, **19** (5), 1140 – 1152, ISSN: 1057-7157 (2010).
- 36 G. Cocchetti, C. Comi, U. Perego – Strength assessment of adhesively bonded tile claddings, *International Journal of Solids and Structures* **48**, 2048–2059 (2011).
- 37 C. Comi, U. Perego – Anisotropic damage model for concrete affected by alkali-aggregate reaction. *Int. J. Damage Mech.* **20**, 598-617, ISSN:1056-7895 (2011).
- 38 A. Tocchio, C. Comi, G. Langfelder, A. Corigliano, A. Longoni, – Enhancing the Linear Range of MEMS Resonators for Sensing Applications, *IEEE Sensors Journal*, **11**(12), 3202-3210, ISSN:1530-437X (2011).
- 39 C. Comi, R. Pignatelli - Multi-phase modeling of concrete subject to alkali silica reaction, *Structural Longevity*, vol.8, no.3, pp.149-157, (2012). doi:10.3970/sl.2012.008.149
- 40 C. Comi, B. Kirchmayr, R. Pignatelli - Two-phase damage modeling of concrete affected by alkali-silica reaction under variable temperature and humidity conditions, *International Journal of Solids and Structures*, **49**, 3367-3380, DOI: 10.1016/j.ijsolstr.2012.07.015 (2012).
- 41 R. Pignatelli C. Comi, P. Monteiro, A coupled mechanical and chemical damage model for concrete affected by alkali-silica reaction, *Cement and Concrete Research* **53**, 196–210, DOI: 10.1016/j.cemconres.2013.06.011 (2013).
- 42 C. Comi, A. Corigliano, A. Ghisi, S. Zerbini, A resonant micro accelerometer based on electrostatic stiffness variation, *Meccanica* **48**, 1893–1900, DOI 10.1007/s11012-013-9768-x (2013).
- 43 A. Caspani, C. Comi, A. Corigliano, G. Langfelder, A. Tocchio, Compact biaxial micromachined resonant accelerometer, *J. Micromech. Microeng.* **23**, 105012 (10pp) doi:10.1088/0960-1317/23/10/105012 (2013).
- 44 G. Chiantoni, C. Comi, S. Mariani, N. Bonora, Experimental assessment of ductile damage in P91 steel at high temperature, *Int. J. Damage Mechanics*, doi: 10.1177/1056789513503972 (2013).
- 45 A. Corigliano, R. Ardito, C. Comi, A. Frangi, A. Ghisi, S. Mariani - Microsystems and Mechanics, *Procedia IUTAM* **10138** – 160 (2014).
- 46 A Caspani, C Comi, A Corigliano, G Langfelder, V Zega, and S Zerbini. Dynamic Non-Linear Behaviour of Torsional Resonators in MEMS, *J. Micromech. Microeng.* **24**, 095025 (9pp) doi:10.1088/0960-1317/24/9/095025 (2014).
- 47 C. Comi, A. Corigliano, G. Langfelder, V. Zega, S. Zerbini. Sensitivity and temperature behavior of a novel z-axis differential resonant micro accelerometer, *J. Micromech. Microeng.* **26**, 035006 (11pp), doi:10.1088/0960-1317/26/3/035006 (2016).
- 48 C. Comi, A. Corigliano, V. Zega and S. Zerbini - Non linear response and optimization of a new z-axis resonant micro-accelerometer. *Mechatronics* **40** (2016) 235-243.
- 49 N. Cefis, C. Comi – Chemo-mechanical modelling of the external sulfate attack in concrete, *Cement and Concrete Research*, **93**, (2017) 57-70.
- 50 C. Comi, L. Driemeier – Wave propagation in cellular locally resonant metamaterials, *Latin American Journal of Solids and Structures* (under review).

National Journals

- 1 G. Cocchetti, C. Comi, U. Perego – Cohesive crack approach to debonding analysis. *Cadernos de Engenharia de Estruturas*, v. 12, n. 57, p. 67-80, ISSN: 1809-5860 (2010).
- 2 N. Cefis, C. Comi, Damage modelling in concrete subject to sulfate attack, *Frattura ed Integrità Strutturale*, **29**, 222-229 DOI: 10.3221/IGF-ESIS.29.19, ISSN 1971-8993 (2014)
- 3 V. Zega, C. Comi, A. Corigliano, C. Valzasina, Integrated structure for a resonant micro-gyroscope and accelerometer *Frattura ed Integrità Strutturale*, **29**, 334-342 DOI: 10.3221/IGF-ESIS.29.29, ISSN 1971-8993 (2014).

Scientific Academies

- 1 C. Comi, G. Maier - Extremum theorem and convergence criterion for an iterative solution to the finite -step problem in elastoplasticity with mixed nonlinear hardening. *Atti. Acc. Lincei Rend. fis.*, **LXXXIII**, 177-186 (1989).

- 2 C. Comi, A. Corigliano - Su certe delimitazioni in dinamica elastoplastica con incrudimento non lineare. *Rend. Sc. Istituto Lombardo*, **A 123**, 67-97 (1989).
- 3 C. Comi, A. Corigliano - Estensione di un teorema sull'adattamento in dinamica elastoplastica. *Rend. Mat. Acc. Lincei*, **1(9)**, 151-159 (1990).
- 4 A. Corigliano, C. Comi - Estensione a leggi costitutive a variabili interne dei teoremi di inadattamento in dinamica strutturale elastoplastica. *Rend. Mat. Acc. Lincei*, **1(9)**, 265-273 (1990).
- 5 C. Comi, U. Perego - A variationally consistent generalized variable formulation of the elastoplastic rate problem. *Rend. Mat. Acc. Lincei*, **2(9)**, 177-190 (1991).
- 6 A. Benallal, C. Comi - The role of deviatoric and volumetric nonassociativities on strain localization, *Rend. Mat. Acc. Lincei*, s. IX, vol. **IV (4)**, 279-290, (1993).
- 7 C. Comi - A gradient damage model for dynamic localization problems, *Rend. Sc. Istituto Lombardo*, **A 130**, 119-141 (1996).

Books

- 1 G. Maier, C. Comi, A. Corigliano, U. Perego, H. Hübner - Bounds and estimates on inelastic deformations: a study of their practical usefulness, *Report EUR 16555 EN*, ECSC-EC-EAEC, Brussels, Luxembourg (1996).
- 2 C. Comi, L. Corradi Dell'Acqua – Introduzione alla meccanica strutturale. McGraw-Hill, Milano, 2003.
- 3 A. Corigliano, R. Ardito, C. Comi, A. Frangi, A. Ghisi, S. Mariani - Mechanics of Microsystems, Wiley, ISBN: 978-1-119-05383-5, 2018 in press.

Publications in books

- 1 C. Comi, A. Corigliano, G. Maier- Delimitazioni nell'adattamento dinamico e teoremi di estremo per passo finito olonomo in elastoplasticità con incrudimenti non lineari cinematico ed isotropo. *Omaggio a Giulio Ceradini*, Università di Roma La Sapienza, 237-248 (1988).
- 2 C. Comi, G. Maier, U. Perego - On finite element elastoplastic analysis based on generalized variables. *New Advances in Comp. Struct. Mechanics*, P. Ladeveze and O.C. Zienkiewicz eds., Elsevier Science Publishers (1992).
- 3 C. Comi, A. Corigliano, G. Maier - Convergence of the Newton-Raphson method in elastic-plastic-softening structural dynamics. *The finite element method in the 1990's*, E. Oñate, J. Periaux, A. Samuelsson, eds., CIMNE Barcelona & Springer-Verlag, 258-265 (1991).
- 4 A. Benallal, C. Comi, J. Lemaitre - Critical damage states at crack initiation, in '*Damage Mechanics and Localization*', J.W. Ju, K.C. Valanis, eds., ASME AMD-vol **142**, MD-vol.**34**, 13-23 (1992).
- 5 C. Comi, U. Perego - On the capability of finite element models to predict plastic collapse, *Volume in onore di J. Martin* (1997)
- 6 G. Maier, C. Comi - Variational finite element modelling in poroplasticity, *Volume in onore di J. Martin* (1997)
- 7 C. Comi, L. Driemeier – On gradient regularization for numerical analyses in the presence of damage, in: *Material Instabilities in Solids*, (ed. R. de Borst, E. van der Giessen) Wiley, cap. 26, 425-440, (1998). ISBN 0471974609, 9780471974604
- 8 A. Benallal, C. Comi – Some remarks on stability of elastic-plastic saturated porous media Some remarks on stability of elastic-plastic saturated porous media, p. 3-11 in: "Bifurcation and Localization Theory in Geomechanics" (Muhlhaus, H.-B., Dyskin, A.V. and Pasternak, E., Eds.), 2001 Swets & Zeitlinger, Lisse

Proceedings of International Congresses

- 1 C. Comi, G. Maier - On the convergence of a backward difference iterative procedure in elastoplasticity with nonlinear kinematic and isotropic hardening. *Proc. 2nd Int. Conf. on Computational Plasticity*, D.R.J. Owen, E. Hinton, E. Onate, eds., Barcelona, Spain 18th-22nd September, 1989, Pineridge Press, 323-334 (1989).
- 2 G. Maier, C. Comi, A. Corigliano - Extremum properties of holonomic finite-step solutions in elasto-plasticity with nonlinear kinematic and isotropic hardening. *Advances in Plasticity 1989, Proc. 2nd Int Symp. on Plasticity and Its current Applications*, A. Khan, M. Tokuda, eds. Tsu, Japan, July 31- August 4, Pergamon Press, 99-102 (1989).
- 3 C. Comi, G. Maier, U. Perego - On finite element elastoplastic analysis based on generalized variables. *Proc. Eur. Conf. on New Advances in Computational Structural Mechanics*, Giens, France, 2-5 April 1991, 609-616 (1991).
- 4 C. Comi, U. Perego - A regularization technique for elastoplastic softening analyses based on generalized variables, *COMPLAS 4*, Barcelona, Spain, April 3-6 (1995).
- 5 C. Comi - Computational modeling of gradient damage for dynamic localization, *Proc. Joint Conf. It. Group Comp. Mech and Ibero-Latin American Ass. Comp. Meth. Engng.*, Padova, 25-27 settembre 1996, 77-80 (1996).
- 6 A. Benallal, C. Comi - Properties of the finite-step problem in numerical analysis of unstable saturated porous continua, *Atti COMPLAS 5*, Barcelona, Spain, March 17-20 (1997).

- 7 C. Comi, U. Perego - On visco-damage models for concrete at high strain rates, *Proc. COMPLAS 5*, Barcelona, Spain, March 17-20 (1997).
- 8 L. Driemeier, C. Comi, S. P. B. Proença – On the use of higher order gradients in the regularization of the numerical response of a damage model. In: *Computational Methods in Engineering '99*, P.M. Pimenta, R.M.L.R.F. Brasil, E.S. Almeida (eds) *Atti XX CILAMCE*, 3-5 novembre 99, São Paulo (Brazil), 226.1-226.2 (1999).
- 9 C. Comi, U. Perego – A bi-dissipative damage model for concrete with applications to dam engineering *Proc. COMPLAS 5*, Barcelona, Spain, (2000).
- 10 C. Comi, E. Rizzi – On bifurcation in local and nonlocal materials with tension and compression damage, *Proc. COMPLAS 5*, Barcelona, Spain, (2000).
- 11 C. Comi – A nonlocal damage model with permanent strains for quasi-brittle materials, in: *Continuous Damage and Fracture (Proc. Symposium 23-26 ottobre, Cachan, Francia)*, A. Benallal (Ed.), Elsevier, 221-232 (2000).
- 12 G. Maier, C. Comi – Energy properties of solutions to quasi-brittle fracture mechanics problems with piecewise linear cohesive crack models, in: *Continuous Damage and Fracture (Proc. Symposium 23-26 ottobre, Cachan, Francia)*, A. Benallal (Ed.), Elsevier, 197-205 (2000).
- 13 C. Comi, U. Perego –Symmetric and non-symmetric non-local damage formulations: an assessment of merits, *Proc. ECCM-2001*, CD, Cracow, Poland, 26-29 giugno (2001).
- 14 A. Benallal, C. Comi – Numerical aspects of the deformation and failure of saturated porous media, *Proc. CIMENICS 2002*, Caracas, April 2002.
- 15 C. Comi, S. Mariani, U. Perego - On the transition from continuum nonlocal damage to quasi-brittle discrete crack models, *Proc. GIMC_2002 Third Joint Conf. Italian Group of Computational Mechanics and Ibero-Latin American Ass. of Computational Methods in Engineering*. Giulianova (Italy), June 24-26 (2002).
- 16 C. Comi, S. Mariani, U. Perego - From localized damage to discrete cohesive crack propagation in nonlocal continua, *Proc. WCCM V Fith World Congress on Computational Mechanics*, Eds. H.A. Mang, F.G. Rammerstorfer, J. Eberhardsteiner. July 7-12, 2002 Vienna.
- 17 A. Villa, B. De Masi, A. Corigliano, A. Frangi, C. Comi - Mechanical characterization of epitaxial polysilicon in MEMS, *Proc. Second MIT Conference on Computational Fluid and Solid Mechanics*, Boston, June 2003, K.J. Bathe ed., vol. 1, pp. 722-726, Elsevier, 2003.
- 18 L. Driemeier, C. Comi - Non-local finite strain elasticity models for trusses – *Proc. COBEM2003 17th Int. Congress of Mechanical Engineering*, November 10-14, 2003, Sao Paulo (Brazil)
- 19 B. De Masi, A. Villa, A. Corigliano, A. Frangi, C. Comi, M. Marchi - On chip tensile test for epitaxial polysilicon. *Proc: MEMS04, Maastricht, 25-29 January (2004)*.
- 20 C. Comi, S. Mariani, U. Perego – An extended finite element strategy for the analysis of crack growth in damaging concrete structures *Proc. ECCOMAS 2004*, 24-28 July 2004, Jyväskylä (Finland).
- 21 C. Comi, L. Driemeier – A nonlocal plasticity model: size effect and localization. *Proc. XXV CILAMCE*, November 10-12, 2004 Recife Pernambuco (Brasil), 11pp CD
- 22 C. Comi, S. Mariani, U. Perego – Cohesive crack propagation in damaging concrete structures discretized by extended finite elements. *Proc. 11th International Conference on Fracture*, Turin (Italy), March 20-25, 2005.(6pp CD, n° 4813)
- 23 C. Comi, S. Mariani, M. Negri, U. Perego – A variational approach to cohesive-damaging crack propagation in a bar *Proc. 11th International Conference on Fracture*, Turin (Italy), March 20-25, 2005.(6pp CD, n° 4820)
- 24 C. Comi, S. Mariani– Extended finite elements for fracture analysis in functionally graded materials. *Proc. COMPLAS VIII*, Barcelona (Spain), September 5-8, 2005, pp 553-556.
- 25 C. Comi, S. Mariani – Extended FE simulations of crack growth in layered and functionally graded materials. *Proc. ECF16*, Alexandroupolis, Greece, July 3-7, 2006, 7pp.
- 26 R. Ardito, C. Comi, A. Corigliano, A. Frangi – Intrinsic dissipation in microelectromechanical systems, *Proc. 9th Int. Conf. on thermal, mechanical and multiphysics simulation and experiments in micro-electronics and micro-systems, EuroSimE2008*, 20-23 April, 2008, Freiburg, Germany, pp. 505-512.
- 27 C. Comi, A. Corigliano, A. Merassi, B. Simoni – A surface micromachined resonant accelerometer with high resolution, *Proc. ESMC2009 - 7th Euromech solid mechanics conference*, J. Ambrósio et.al. (eds.) , Lisbon, (Portugal), September 7-11, 2009, (8pp CD, n° 0671).
- 28 C. Comi, U. Perego – A damage model for long term degradation in concrete dams due to the alkali-aggregate reaction, *Proc. LTBD09 2nd International Conference on Long Term Behaviour of Dams*, 12th - 13th October 2009, Graz (Austria), pp. 438-443. ISBN: 978-3-85125-070-1.
- 29 C. Comi, A. Corigliano, A. Longoni, G. Langfelder, A. Tocchio, B. Simoni - A new two-beam differential resonant micro accelerometer, *Proc. IEEE SENSORS 2009 Conference*, 25-28 October 2009, Canterbury (New Zealand), pp 158 – 163. ISBN: 978-1-4244-5335-1, ISSN: 1930-0395.
- 30 C. Comi, A. Corigliano, G. Langfelder, A. Longoni, A. Tocchio, B. Simoni – A high sensitivity uniaxial resonant accelerometer. *Proc. MEMS2010*, 24-28 January 2010, Hong Kong., pp.260-263, ISSN: 10846999 ISBN: 978-142445764-9
- 31 C. Comi, A. Corigliano, G. Langfelder, A. Longoni, A. Tocchio, B. Simoni – A new biaxial silicon resonant micro accelerometer. *Proc. MEMS2011*, 23-27 January 2011, Cancun, Mexico, pp.529-532. ISBN: 978-1-4244-9633-4. ISSN: 1084-6999.
- 32 C. Comi, A. Corigliano, G. Langfelder, A. Longoni, A. Tocchio – On the nonlinear behaviour of MEMS resonators . *Proc. 12th. Int. Conf. on Thermal, Mechanical and Multiphysics Simulation and Experiments in Microelectronics and*

Microsystems, EuroSimE 2011, 17-20 April 2011, Linz, Austria, 6pp., ISBN: 978-1-4577-0106-1/11.

- 33 C. Comi, R. Pignatelli – A three-phase model for damage induced by ASR in concrete structures Proc IV Int. Conf. on Computational Methods for Coupled Problems in Science and Engineering COUPLED PROBLEMS 2011 M. Papadrakakis, E. Oñate and B. Schrefler (Eds), 20-22 June, 2011, Kos, Greece, 12pp., ISBN: 978-84-87867-59-0
- 34 C. Comi, R. Pignatelli - On the Modelling of Alkali-Aggregate Reaction in Concrete Dams, Proc. 9th ICOLD European Club Symposium, April, 10-14, 2013 Venice, Italy.
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