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Loredana Contrafatto

PhD - Professore Associato Settore Scientifico-Disciplinare ICAR/08 - Scienza delle Costruzioni
Department of Civil Engineering and Architecture

Il sottoscritto/the *undersigned* CONTRAFATTO LOREDANA nata a/born in CATANIA il/on 25/01/1967, consapevole delle sanzioni penali richiamate dall'articolo 75 e 76 del Dpr 445/2000 in caso di dichiarazioni non veritieri e falsità in atti / aware that providing false data and using fake documents are crimes punishable by law (art. 75 and 76 of the Presidential Decree n. 445/2000) dichiara sotto la propria personale responsabilità / declares under his/her own responsibility (art. 46 e 47 del DPR n° 445/2000) / (art. 46-47 Presidential Decree n. 445/2000) di essere in possesso dei titoli e autore delle pubblicazioni scientifiche sottoelencati/ to hold the qualifications and author of the scientific publications listed below.

LIST OF PUBLICATIONS

PhD thesis:

L. Contrafatto - *Una formulazione agli sforzi per modelli elastoplastici con variabili interne. Formulazione variazionale ed implementazione numerica basata sul metodo del lagrangiano aumentato* - Tesi di Dottorato, Università di Catania, 1996.

International journals and books:

Cuomo, M., Boutin, C., Contrafatto, L., Gazzo, S.
Effective anisotropic properties of fibre network sheets
(2022) European Journal of Mechanics, A/Solids, 93, art. n. 104492
DOI: 10.1016/j.euromechsol.2021.104492
Document Type: Article
Source: Scopus

(2021) In: Sustainable Concrete Made with Ashes and Dust from Different Sources: Materials, Properties and Applications – Editors Rafat Siddique, Rafik Belarbi - Elsevier Book
Contrafatto, L.
Chapter 8 – Volcanic ash
DOI: 10.1016/B978-0-12-824050-2.00011-5
ISBN: 978-0-12-824050-2

Gazzo, S., Cuomo, M., Boutin, C., Contrafatto, L.
Directional properties of fibre network materials evaluated by means of discrete homogenization
(2020) European Journal of Mechanics, A/Solids, 82, art. n. 104009, .
DOI: 10.1016/j.euromechsol.2020.104009
Document Type: Article
Source: Scopus

Contrafatto, L., Lazzaro Danzuso, C., Gazzo, S., Greco, L.
Physical, mechanical and thermal properties of lightweight insulating mortar with recycled Etna volcanic aggregates
(2020) Construction and Building Materials, 240, art. no. 117917, .
DOI: 10.1016/j.conbuildmat.2019.117917

Document Type: Article

Source: Scopus

Greco, A., Tsallis, C., Rapisarda, A., Pluchino, A., Fichera, G., Contrafatto, L.

Acoustic emissions in compression of building materials: q-statistics enables the anticipation of the breakdown point

(2020) European Physical Journal: Special Topics, 229 (5), pp. 841-849.

DOI: 10.1140/epjst/e2020-800232-7

Document Type: Article

Source: Scopus

Contrafatto, L., Gazzo, S., Purrazzo, A., Gagliano, A.

Thermo-mechanical characterization of insulating bio-plasters containing recycled volcanic pyroclasts

(2020) Open Civil Engineering Journal, 14 (1), pp. 66-77.

DOI: 10.2174/1874149502014010066

Document Type: Article

Source: Scopus

Greco, L., Cuomo, M., Contrafatto, L.

Two new triangular G1-conforming finite elements with cubic edge rotation for the analysis of Kirchhoff plates

(2019) *Computer Methods in Applied Mechanics and Engineering*, 356, pp. 354-386.

DOI: 10.1016/j.cma.2019.07.026

Document Type: Article

Source: Scopus

Greco, L., Cuomo, M., Contrafatto, L.

A quadrilateral G1-conforming finite element for the Kirchhoff plate model

(2019) *Computer Methods in Applied Mechanics and Engineering*, 346, pp. 913-951.

DOI: 10.1016/j.cma.2018.09.028

Document Type: Article

Source: Scopus

Greco, L., Cuomo, M., Contrafatto, L.

A reconstructed local B⁻ formulation for isogeometric Kirchhoff–Love shells

(2018) *Computer Methods in Applied Mechanics and Engineering*, 332, pp. 462-487.

DOI: 10.1016/j.cma.2018.01.005

Document Type: Article

Source: Scopus

Contrafatto, L., Cosenza, R., Barbagallo, R., Ognibene, S.

Use of recycled aggregates in road sub-base construction and concrete manufacturing

(2018) *Annals of Geophysics*, 61 (2), art. no. SE223, .

DOI: 10.4401/ag-7785

Document Type: Article

Source: Scopus

Contrafatto, L.

Recycled Etna volcanic ash for cement, mortar and concrete manufacturing

(2017) *Construction and Building Materials*, 151, pp. 704-713.

DOI: 10.1016/j.conbuildmat.2017.06.125

Document Type: Article

Source: Scopus

Greco, L., Cuomo, M., Contrafatto, L., Gazzo, S.

An efficient blended mixed B-spline formulation for removing membrane locking in plane curved Kirchhoff rods

(2017) *Computer Methods in Applied Mechanics and Engineering*, 324, pp. 476-511.

DOI: 10.1016/j.cma.2017.06.032

Document Type: Article

Source: Scopus

Contrafatto, L., Cuomo, M., Greco, L.

Meso-scale simulation of concrete multiaxial behaviour

(2017) *European Journal of Environmental and Civil Engineering*, 21 (7-8), pp. 896-911.

DOI: 10.1080/19648189.2016.1182085

Document Type: Article

Source: Scopus

Pappalardo, G., Punturo, R., Mineo, S., Contrafatto, L.

The role of porosity on the engineering geological properties of 1669 lavas from Mount Etna

(2017) *Engineering Geology*, 221, pp. 16-28.

DOI: 10.1016/j.enggeo.2017.02.020

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Source: Scopus

Contrafatto, L., Cuomo, M., Gazzo, S.

A concrete homogenisation technique at meso-scale level accounting for damaging behaviour of cement paste and aggregates

(2016) *Computers and Structures*, 173, pp. 1-18.

DOI: 10.1016/j.compstruc.2016.05.009

Document Type: Article

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Contrafatto, L., Cosenza, R.

Behaviour of post-installed adhesive anchors in natural stone

(2014) *Construction and Building Materials*, 68, pp. 355-369.

DOI: 10.1016/j.conbuildmat.2014.05.099

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Contrafatto, L., Cosenza, R.

Prediction of the pull-out strength of chemical anchors in natural stone

(2014) *Frattura ed Integrità Strutturale*, 8 (29), pp. 196-208.

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Cuomo, M., Contrafatto, L., Greco, L.

A variational model based on isogeometric interpolation for the analysis of cracked bodies

(2014) *International Journal of Engineering Science*, 80, pp. 173-188.

DOI: 10.1016/j.ijengsci.2014.02.017

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Sclofani, D.A.S., Contrafatto, L.

Experimental behaviour of polyvinyl-alcohol modified concrete

(2013) *Advanced Materials Research*, 687, pp. 155-160.

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Contrafatto, L., Cuomo, M., Fazio, F.

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(2012) *International Journal of Fracture*, 178 (1-2), pp. 33-50.

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Contrafatto, L., Cuomo, M.

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(2007) *Modelling and Simulation in Materials Science and Engineering*, 15 (4), art. no. S07, pp. S405-S423.

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Contrafatto, L., Cuomo, M.

A framework of elastic-plastic damaging model for concrete under multiaxial stress states

(2006) *International Journal of Plasticity*, 22 (12), pp. 2272-2300.

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Contrafatto, L., Cuomo, M.

A globally convergent numerical algorithm for damaging elasto-plasticity based on the Multiplier method

(2005) *International Journal for Numerical Methods in Engineering*, 63 (8), pp. 1089-1125.

DOI: 10.1002/nme.1235

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Contrafatto, L., Ventura, G.

Numerical analysis of Augmented Lagrangian algorithms in complementary elastoplasticity

(2004) *International Journal for Numerical Methods in Engineering*, 60 (14), pp. 2263-2287.

DOI: 10.1002/nme.1042

Document Type: Article

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Contrafatto, L., Cuomo, M.

A new thermodynamically consistent continuum model for hardening plasticity coupled with damage

(2002) *International Journal of Solids and Structures*, 39 (25), pp. 6241-6271.

DOI: 10.1016/S0020-7683(02)00470-5

Document Type: Article

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Cuomo, M., Contrafatto, L.

Stress rate formulation for elastoplastic models with internal variables based on augmented

Lagrangian

regularisation

(2000) *International Journal of Solids and Structures*, 37 (29), pp. 3935-3964.

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In-Books

1. M. Cuomo, L. Contrafatto, - *Augmented Lagrangian Variational Formulation for a Plastic-Hardening-Damage Coupled Model* - in Damage and Fracture Mechanics - Computer Aided Assessment and Control, eds. Carlos A. Brebbia & Alberto Carpinteri, Computational Mechanics Publications, Section 2: Damage Mechanics, 97-110, Southampton UK, Boston USA, 1998. (ISBN 1 85312 5830 ISSN 1462-6055)

Proceedings of International Conferences:

1. M. Cuomo, L. Contrafatto, G. Ventura - *A complementary energy formulation for the numerical analysis of elastic-plastic problems* - 2nd Euromech, European Solid Mechanics Conference, Università di Genova, Settembre 1994.
2. M. Cuomo, L. Contrafatto - *A variationally consistent incremental principle for the elastic-plastic problem based on complementary energy* - IV International Conference on Computational Plasticity - Fundamentals and Applications - Computational Plasticity, eds. D.R.J. Owen, E. Oñate, E. Hinton, Pineridge Press, 2249-2260, Barcelona, Spain, 1995. (ISBN 0-906674-85-9)
3. M. Cuomo, L. Contrafatto, G. Ventura - *Comparison of some numerical algorithms based on augmented lagrangian regularisation for elastic-plastic analysis* - V International Conference on Computational Plasticity - Fundamentals and Applications, eds. D.R.J. Owen, E. Oñate, E. Hinton, Pineridge Press, 2033-2038, Barcelona, Spain, 1997. (ISBN 84-87867-88-X)
4. M. Cuomo, L. Contrafatto - *On a Viscoplastic Regularisation Applied to a Plastic-Hardening-Damage Coupled Model* - European Conference on Computational Mechanics ECCM 99, ed. W. Wunderlich, München, Germany, 30 August - 3 September, 1999.
5. L. Contrafatto, M. Cuomo - *On a thermodynamically consistent continuum model for concrete coupled with quasi-isotropic damage* - European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2000, Barcelona, Spain, 11-14 September, 2000. (ISBN 84-89925-70-4)
6. L. Contrafatto, M. Cuomo - *Analysis of coupling mechanisms of damage and plasticity in a thermodynamically consistent continuum model* - 4th Euromech, Solid Mechanics Conference, Metz, France, 26-30 June, 2000.
7. L. Contrafatto, M. Cuomo - *A numerical algorithm for a unified treatment of multiple yield and internal constraint in elasto-plasticity with damage* - WCCM V - Fifth World Congress on Computational Mechanics, Vienna, Austria, July 7-12, 2002. (ISBN 3-9501554-2-2)
8. M. Cuomo, L. Contrafatto - *A global convergent algorithm for elasto-plasticity with damage based on multipliers method* - COMPLAS 2003 - VII International Conference on Computational Plasticity, eds. D.R.J. Owen, E. Oñate, CIMNE, Barcelona, Spain, April 7-10, 2003. (ISBN 84-95999-22-6)
9. L. Contrafatto, M. Cuomo - *Elastic-plastic damaging behaviour of concrete: a generalised Ottosen criterion* - VII International Conference on Computational Plasticity, COMPLAS 2003, eds. D.R.J. Owen, E. Oñate, CIMNE, Barcelona, Spain, April 7-10, 2003. (ISBN 84-95999-22-6)
10. L. Contrafatto, M. Cuomo - *Comparison of the convergence performance of Lagrangian, Augmented Lagrangian and Multiplier algorithms in damaging elasto-plasticity* - European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2004, Jyväskylä, Finland, 24-28 July, 2004. (ISBN 951-39-1868-8)

11. M. Cuomo, L. Contrafatto, A. Nicolosi - *Multiaxial stress analysis of elastic-plastic damaging concrete structures* - European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2004, Jyväskylä, Finland, 24-28 July, 2004. (ISBN 951-39-1868-8)
12. L. Contrafatto, M. Cuomo - A framework of elastic-plastic damaging model for concrete. Extension to anisotropic damage. WCCM VII - 7th World Congress on Computational Mechanics, Los Angeles, California, July 16-22, 2006.
13. M. Cuomo, L. Contrafatto, M. Miccichè – Modelling of cohesive fracture processes by intra-element interfaces – Modelling of Heterogeneous Materials with Applications in Construction and Biomedical Engineering, MHM 2007 (ECCOMAS Thematic Conference), Prague, Czech Republic, June 25-27, 2007. (ISBN 978-80-01-03762-1)
14. Loredana Contrafatto, Massimo Cuomo, Maria Lina Miccichè - *Modelling of cohesive fracture processes by intra-element discontinuities* - IX International Conference on Computational Plasticity, COMPLAS 2007, CIMNE, Barcelona, Spain, September, 5-7, 2007. (ISBN 978-84-96736-29-0)
15. Loredana Contrafatto, Massimo Cuomo - *Numerical modelling of growth and propagation of interfaces by means of the embedded discontinuities approach* - 8th. World Congress on Computational Mechanics (WCCM8) and joined 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), Venice, Italy, June 30 -July 5, 2008. (ISBN 978-84-96736-55-9)
16. Massimo Cuomo, Loredana Contrafatto - *The Element Embedded Interfaces approach for modelling damaging interfaces* - The Ninth International Conference on Computational Structural Technology - CST2008. Athens, Greece, 2-5 September, 2008. (ISBN 978-1-905088-25-6)
17. Loredana Contrafatto - *Application of the Strong Discontinuities Approach for the analysis of laminated glass units*, 2nd South East European Conference on Computational Mechanics, Island of Rodhes, Greece, 22-24 June, 2009. (ISBN 978-960-254-683-3).
18. Massimo Cuomo, Loredana Contrafatto. *Diffused vs. concentrated cracks in the Strong Discontinuities Approach*. 2nd South East European Conference on Computational Mechanics, Island of Rodhes, Greece, 22-24 June, 2009. (ISBN 978-960-254-683-3).
19. Loredana Contrafatto, Massimo Cuomo - *A numerical algorithm for the prediction of growth and propagation of interfaces* - X International Conference on Computational Plasticity, COMPLAS X, E. Oñate and D.R.J. Owen (Eds), CIMNE, Barcelona, Spain, September 2-4, 2009.
20. Loredana Contrafatto, Massimo Cuomo - *A variational formulation of the equilibrium problem of a damaging continuum in the context of the Strong Discontinuities Approach* - 7th EUROMECH Solid Mechanics Conference, ESMC 2009 – Lisbon, Portugal, September 7-11, 2009. (ISBN 978-989-96264-2-3).
21. Loredana Contrafatto, Massimo Cuomo - *Finite Element implementation of an enhanced Strong Discontinuities Approach formulation vs. smeared crack models*. IV European Conference on Computational Mechanics, ECCM 2010, Paris, France, May 16-21, 2010.
22. Gustavo Ayala, Loredana Contrafatto, Massimo Cuomo, Jaime Retama - *Consistent symmetric formulation of the Enhanced Embedded Discontinuity Method*, IV European Conference on Computational Mechanics, ECCM 2010, Paris, France, May 16-21, 2010.
23. Loredana Contrafatto, Massimo Cuomo, Francesco Fazio - *An Enriched Finite Element that Accounts for Crack opening and Rebar Slip in Reinforced Concrete Members*, International

Conference on Computational Modeling of Fracture and Failure of Materials and Structures, CFRAC 2011, Barcelona, Spain, June 6-8, 2011. (ISBN 978-88-906340-1-7).

24. Loredana Contrafatto, Massimo Cuomo, Giuseppe Tommaso Di Venti - *Modelling Interfaces by the Strong Discontinuity Approach: New Theoretical and Computational Developments*, International Conference on Computational Modeling of Fracture and Failure of Materials and Structures, CFRAC 2011, Barcelona, Spain, June 6-8, 2011. . (ISBN 978-88-906340-1-7).
25. Loredana Contrafatto, Massimo Cuomo, Giuseppe Tommaso Di Venti - *Finite Elements with non-Homogeneous Embedded Discontinuities*, 6th European Congress on Computational Methods in Applied Sciences and Engineering, ECCOMAS 2012, Vienna, Austria, September 10-14, 2012. (ISBN 978-3-9502481-9-7) **ISBN:** 978-395035370-9
26. Loredana Contrafatto, Massimo Cuomo, Salvatore Gazzo (2015). *Mesoscale prediction of concrete mechanical properties by random phase allocation*. In: Book of Abstracts X-DMS 2015 eXtended Discretization MethodS, eds: Giulio Ventura, Elena Benvenuti, p. 1-2, Ferrara - Italy, 9-11 September 2015
27. Loredana Contrafatto, Leopoldo Greco, Massimo Cuomo. Quadrilateral bi-cubic conforming finite elements for plates and shells. In: Book of Abstracts 13th World Congress on Computational Mechanics / 2nd Pan American Congress on Computational Mechanics (WCCM 2018), July 22-27, 2018, New York, NY, USA.
28. Leopoldo Greco, Massimo Cuomo, Loredana Contrafatto, Salvatore Gazzo. An Efficient Blended mixed B-Spline Formulation for Non-Polar Thin Structural Models. In: Book of Abstracts 13th World Congress on Computational Mechanics / 2nd Pan American Congress on Computational Mechanics (WCCM 2018), July 22-27, 2018, New York, NY, USA.
29. Massimo Cuomo, Loredana Contrafatto, Leopoldo Greco, Continuum Damage and Plasticity Model for Higher Gradient Materials. In: Book of Abstracts 13th World Congress on Computational Mechanics / 2nd Pan American Congress on Computational Mechanics (WCCM 2018), July 22-27, 2018, New York, NY, USA.
30. Enrico Bernardo, Loredana Contrafatto, Double-life Construction Materials from Discarded Glass and Volcanic Ash. 46th International Conference and Expo on Advanced Ceramics and Composites (ICACC2022) – Virtual Conference. 16th International Symposium on Advanced Processing and Manufacturing Technologies for Structural and Multifunctional Materials and Systems, January 27th, 2022.

Proceedings of National Conferences:

1. G. Cascone, L. Contrafatto - *Influenza del contenuto di umidità sul regime termico del terreno sotto serra*. - Sessione Posters V Convegno Nazionale Associazione Italiana del Genio Rurale, Università della Calabria, 7-11 Giugno 1993.
2. M. Cuomo, L. Contrafatto, G. Ventura - *Tecniche computazionali di ottimizzazione del funzionale dell'energia complementare per problemi strutturali con vincoli di disuguaglianza sulle variabili* - Atti VII Convegno Italiano di Meccanica Computazionale, Università di Trieste, 1-3 Giugno 1993.
3. M. Cuomo, L. Contrafatto - *Una formulazione incrementale basata sull'energia complementare adatta per un materiale con comportamento elasto-plastico fratturante* - Atti VIII Convegno Italiano di Meccanica Computazionale, Politecnico di Torino, 15-17 Giugno 1994.

4. M. Cuomo, L. Contrafatto - *Analisi di sistemi elasto-plastici mediante potenziali di incrudimento complementari* - Atti IX Convegno Italiano di Meccanica Computazionale, Università di Catania, 20-22 Giugno 1995.
5. M. Cuomo, L. Contrafatto - *Un modello di danno continuo per calcestruzzo e materiali lapidei* - XII Convegno Italiano di Meccanica Computazionale GIMC 99, Napoli, 14-16 Luglio, 1999.
6. L. Contrafatto, M. Cuomo - *A multisurface continuum damage model for concrete with strain decomposition* – Atti XIII Convegno Italiano di meccanica Computazionale, Brescia, 13-15 Novembre 2000. (ISBN 88-86524-47-1)
7. M. Cuomo, L. Contrafatto - *An Augmented lagrangian algorithm for constrained constitutive models with multiple dissipative modes* - 15th Congress of the Italian Association of Theoretical and Applied Mechanics, Taormina, Italy, 26-29 September, 2001. (ISSN 1592-8950)
8. L. Contrafatto, M. Cuomo - *Global convergent numerical algorithms for damaging elastoplastic constitutive models with sharp yield surfaces* - 16th AIMETA Congress of Theoretical and Applied Mechanics, Ferrara, 9 -12 Settembre 2003. (No ISBN)
9. M. Cuomo, L. Contrafatto, A. Nicolosi – *Elastic-plastic damaging model for concrete under multiaxial stress states* - 16th AIMETA Congress of Theoretical and Applied Mechanics, Ferrara, 9 -12 Settembre, 2003. (No ISBN)
10. L. Contrafatto, M. Cuomo - *Aspetti computazionali nell'analisi di solidi in calcestruzzo mediante CDM: tecniche per la convergenza del legame costitutivo in presenza di regolarizzazione* - Atti XV Convegno Italiano di Meccanica Computazionale, Genova, 21-23 Giugno 2004. (No ISBN)
11. M. Cuomo, L. Contrafatto, A. Nicolosi - *Formulazione uniassiale di un modello plastico danneggiante accoppiato per il calcestruzzo per l'analisi di travi in cemento armato* - Atti XV Convegno Italiano di Meccanica Computazionale, Genova, 21-23 Giugno, 2004. (No ISBN)
12. Loredana Contrafatto, Massimo Cuomo, Maria Lina Miccichè – *A intra-element discontinuities approach for modelling cohesive fracture processes* - XVIII Convegno Italiano di Meccanica Computazionale, Brescia, 11-14 Settembre, 2007. (ISBN 978-88-89720-69-1)
13. Loredana Contrafatto, Massimo Cuomo - *A variational formulation for the embedded discontinuity method*. XVII Italian Meeting of Computational Mechanics, GIMC 2008, Alghero, Italy, September 10-12, 2008. (No ISBN)
14. Loredana Contrafatto - *Modelling of cracks by the Strong Discontinuities Approach*. XX Convegno Nazionale Gruppo Italiano Frattura, IGF XX, Torino, June 24-26, 2009.(ISBN 978-88-95940-25-0)
15. Loredana Contrafatto, Giuseppe Tommaso Di Venti - *A new approach for the description of fracture in laminated glass beams*. XX Convegno Nazionale Gruppo Italiano Frattura, IGF XX, Torino, June 24-26, 2009. .(ISBN 978-88-95940-25-0).
16. Loredana Contrafatto, Massimo Cuomo - *A variational formulation in damaging plasticity for modelling Strong Discontinuities* – XIX AIMETA Congress of Theoretical and Applied Mechanics, Ancona, Italy, September 14-17, 2009. (ISBN 978-8896378083)
17. Loredana Contrafatto, Giuseppe Tommaso Di Venti - *Analysis of laminated glass beams using the Strong Discontinuities Approach* - XIX AIMETA Congress of Theoretical and Applied Mechanics, Ancona, Italy, September 14-17, 2009. (ISBN 978-8896378083)
18. Loredana Contrafatto, Massimo Cuomo - *On the kinematics of strong discontinuities* - GMA2010 - IV Riunione del Gruppo Materiali dell'AIMETA, Palermo, Italy, February 25-26, 2010. (no CD, no ISBN)

19. Massimo Cuomo, Loredana Contrafatto - *Exact integration of an Element with Embedded Discontinuities formulation*, Joint SIMAI/SEMA Conference on Applied and Industrial Mathematics, Cagliari, Italy, June 21-25, 2010.
20. Loredana Contrafatto, Giuseppe Tommaso Di Venti, Paola Posocco - *Comparative study of laminated glass beams response*, XVIII Italian Meeting of Computational Mechanics, GIMC 2010, Syracuse, Italy, September 22-24, 2010. (ISBN 978-88-905217-0-6)
21. Loredana Contrafatto, Massimo Cuomo, Francesco Fazio - *On the effect of linear distributed loads acting on a RC finite element in the prediction of discrete cracks locations*, XVIII Italian Meeting of Computational Mechanics, GIMC 2010, Syracuse, Italy, September 22-24, 2010. (ISBN 978-88-905217-0-6)
22. Loredana Contrafatto, Massimo Cuomo, Giuseppe Tommaso Di Venti - *New developments in modeling interfaces by the strong discontinuity approach*, XVIII Italian Meeting of Computational Mechanics, GIMC 2010, Syracuse, Italy, September 22-24, 2010. (ISBN 978-88-905217-0-6)
23. Paola Posocco, Loredana Contrafatto, Maurizio Fermeglia, Sabrina Pricl - *Interface adhesion in laminated glass: a molecular simulation perspective*, XVIII Italian Meeting of Computational Mechanics, GIMC 2010, Syracuse, Italy, September 22-24, 2010. (ISBN 978-88-905217-0-6) Abstract
24. Loredana Contrafatto, Massimo Cuomo, Giuseppe Tommaso Di Venti - *Modeling interfaces by the strong discontinuity approach: variational formulation and FEM implementation*, XX AIMETA Congress of Theoretical and Applied Mechanics, Bologna, Italy, September 12-15, 2011 (Book of Abstracts ISBN 978-88-906340-0-0, Online Proceedings ISBN 978-88-906340-1-7)
25. Loredana Contrafatto, Massimo Cuomo, Francesco Fazio - *Enriched Finite Elements for Crack opening and Fiber Slip*, XX AIMETA Congress of Theoretical and Applied Mechanics, Bologna, Italy, September 12-15, 2011 (Book of Abstracts ISBN 978-88-906340-0-0, Online Proceedings ISBN 978-88-906340-1-7)
26. Loredana Contrafatto, Massimo Cuomo, Giuseppe T. Di Venti - *Finite Elements with non Homogeneous Embedded Discontinuities*, XIX Italian Meeting of Computational Mechanics, GIMC 2012, Rossano Calabro, Italy, June 25-27, 2012. (Online Proceedings ISBN 978-88-907488-0-6)
27. Loredana Contrafatto, Massimo Cuomo, Giuseppe T. Di Venti - *A stress locking-free finite element for numerical analysis with the Embedded Discontinuities Method*, XIX Italian Meeting of Computational Mechanics, GIMC 2012, Rossano Calabro, Italy, June 25-27, 2012. (Online Proceedings ISBN 978-88-907488-0-6)
28. Loredana Contrafatto , *Mechanical properties of Polyvinyl-Alcohol modified concrete* - XXI AIMETA Congress of Theoretical and Applied Mechanics, Torino, Italy, September 17-20, 2013.
29. Loredana Contrafatto, Massimo Cuomo, Giuseppe Tommaso Di Venti, *Computational issues in the Finite Element with Embedded Discontinuity Method based on non homogenous displacement jump* - XXI AIMETA Congress of Theoretical and Applied Mechanics, Torino, Italy, September 17-20, 2013.
30. Loredana Contrafatto, Massimo Cuomo, Salvatore Gazzo, *Mesoscale prediction of mechanical properties of concrete*, XXII Conference of the Italian Association of Theoretical and Applied Mechanics, Polytechnic School - Department of Architectural Science - University of Genoa, Genoa, 14-17 September 2015. (Online Proceedings ISBN 978-88-97752-55-4)

31. Loredana Contrafatto, Salvatore Gazzo - *Re-use of Etna pyroclasts in mortar and concrete manufacturing* - In: Proceedings of the XXIII Conference of the Italian Association of Theoretical and Applied Mechanics. Salerno, Italy, September 4-7, 2017. (Online Proceedings ISBN 978-889-42484-7-0)
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