ANDREA PANTEGHINI
Curriculum vitae ac studiorum

Andrea Panteghini, born in Iseo (Brescia), Italy on July 10th, 1980.

Education

- Graduated in Civil Engineering at the Faculty of Engineering of the University of Brescia (Italy) on September 2005
- Qualified to practice as engineer from March 2006.
- Ph.D. in Materials for Engineering at the Faculty of Engineering of the University of Brescia (Italy) on February 2009

Academic activities

- Research Fellow in Mechanics of Materials and Structures at the Department of Civil Engineering of the University of Brescia on 2009-2010
- Assistant Professor in Mechanics of Materials and Structures at the Department of Civil Engineering of the University of Brescia from 1st November 2011
- Adjunct Professor in Mechanics of Materials and Structures and in Strucural Dynamics at the University of Brescia for the Academic Year 2014-2015
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2015-2016
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2016-2017
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2017-2018
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2018-2019
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2019-2020
- National Scientific Habilitation as Associate Professor in Mechanics of Materials and Structures from 5 December 2017.
- National Scientific Habilitation as Full Professor in Mechanics of Materials and Structures from 9 September 2019.

Teaching

- Teaching assistant in Mechanics of Materials and Structures (Prof. A. Carini) for students of Architectural Engineering in 2011-2012.
- Seminary on the numerical integration of constitutive models in plasticity, inside the course of Computional Nonlinear Mechanics (Prof. A. Salvadori) in 2011-2012.
- Teaching assistant in Mechanics of Materials and Structures (Prof. A. Carini) for students of Architectural Engineering in 2012-2013.

- Teaching assistant in Computional Nonlinear Mechanics (Prof. L. Bardella) in 2012-2013.
- Teaching assistant in Structural Dynamics (Prof. A. Feriani) in 2012-2013.
- Teaching assistant in Mechanics of Materials and Structures (Prof. A. Carini) for students of Architectural Engineering in 2013-2014.
- Teaching assistant in Structural Dynamics (Prof. A. Feriani) in 2013-2014.
- Teaching assistant in Mechanics of Materials and Structures (Prof. A. Carini) for students of Architectural Engineering in 2014-2015.
- Adjunct Professor in Structural Dynamics (course under teaching respostability of Prof. A. Feriani) in 2014-2015.
- Adjunct Professor in Mechanics of Materials and Structures for students of Mechanical Engineering in 2015-2016
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2016-2017
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2017-2018
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2018-2019
- Teacher of the Computational Geomechanics module in Foundations course at the University of Brescia for the Academic Year 2018-2019
- Teacher of the Computational Geomechanics module in Foundations course at the University of Brescia for the Academic Year 2019-2020
- Adjunct Professor in Mechanics of Materials and Structures at the University of Brescia for the Academic Year 2019-2020

National and International research cooperations (in alphabetic order)

- Prof. C. Niordson. Head of Section, Department of Mechanical Engineering, Section of Solid Mechanics, Technical University of Denmark, Nils Koppels Allé, Building 404, room 1122800 Kgs. Lyngby
- Prof. F. Perotti, Dipartimento di Ingegneria Civile e Ambientale - Politecnico di Milano, P.zza Leonardo da Vinci, 32, Milano (Italy)
- Prof. C. Di Prisco, Dipartimento di Ingegneria Civile e Ambientale - Politecnico di Milano, P.zza Leonardo da Vinci, 32, Milano (Italy)
- Prof. M. Porfiri, Department of Mechanical and Aerospace Engineering - Tandon School of Engineering, New York University, Six MetroTech Center, Brooklyn, NY, USA
- Prof. A.M. Puzrin, Institute for Geotechnical Engineering, ETH Zurich, IGT, Wolfgang-Pauli-Strasse 15, Zurich 8093, Switzerland
- Prof. A. Simone, Department of Structural Engineering, TU Delft, Stevinweg 1 2628 CN Delft, the Netherlands

Advisor of PhD students

- Adel Shams. Failure mechanics of syntactic foams with applications to marine environments. Department of Mechanical and Aerospace Engineering. Tandon School of Engineering. New York University, Six MetroTech Center, Brooklyn, NY 11201, Advisor: Prof. Maurizio Porfiri (*co-advisor)*

- Marianna Tomasin. A non-linear modelling procedure for dynamic soil-structure interaction analysis under 3D seismic excitation. Ph.D. course in Structural, Seismic and Geotechncial Engineering, Politecnico di Milano, XXX Ciclo. Advisor: Prof. F. Perotti (*co-advisor)*

Reviewer for International Journals

- Mechanics Research Communications
- International Journal of Mechanical Sciences
- Meccanica
- Géotechnique
- Structural Engineering and Mechanics, An International Journal
- International Journal of Solids and Structures
- Materials
- Journal of Manufacturing Science and Engineering (Trans. ASME)
- Applied Mathematical Modelling
- Metals
- Composite Structures
- Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering
- The International Journal of Advanced Manufacturing Technology
- Computers and Geotechnics

Organization of seminars:

- Fiber-based electrodes for Li-ion batteries: a numerical investigation. Davide Grazioli (Department of Structural Engineering, TU Delft, Stevinweg 1 2628 CN Delft, the Netherlands). 2 May 2018

- Size-effects in porous metal plasticity. CHRISTIAN F. NIORDSON (Department of Mechanical Engineering, Technical University of Denmark). 21 August 2018.

Research Projects

- *Constitutive modeling of geomaterials*

  Geomaterials are a wide class of materials, usually identified as brittle, or quasi brittle. For example, rocks, soils, cement and masonries are geomaterials. Also advanced materials, such as ceramics, belong to this class.
  The objective of this research is the development of constitutive models for this class of materials, under the Theory of Plasticity, also adopting nonlocal approaches based on micropolar continua.
  Such constitutive models may be applied in nonlinear Finite Element analysis of advanced engineering problems, as geotechnical applications or simulations of the mechanical behavior of old masonries.
  From a numerical point of view, the constitutive modeling of these materials is particularly critical, due to the difficulties to achieve convergence in Finite Element

analyses of boundary value problems. For this reason, differently from the typical literature approaches, the numerical efficiency and the stability of the integration algorithm is a key point in order to assure the applicability of the developed models to a wide class of practical engineering problems.

- *Gradient plasticity of metals*

  The main goal of this research project is the development of constitutive models that allows one to take into account the nonlocal effects (gradient effects) of the mechanical response of polycrystalline metallic materials subjected to plastic deformation.
  The plastic response of metals, at the micron scale, is influenced by the grain boundaries, that constraint the dislocations flow.
  At this scale, the mechanical properties of a metallic specimen, subject for example to bending or torsion, strongly depend on the specimen size, and they are quite different with respect to those observed at the macroscopic scale.
  In particular, diminishing the specimen size, one observes an improvement of the mechanical properties (strengthening and variation of strain hardening) The classical Plasticity Theory cannot take into account such phenomena, since it is not explicitly referred on any intrinsic material scale.
  Other models have been proposed in the literature, called “Gradient Plasticity models”. They are based on nonlinear partial differential equations in which the spatial gradient of the plastic strains explicitly appears.
  The numerical integration of such differential equations using the Finite Element Method is particularly complex, due to their strong nonlinearity.
  The research topic is then based both on the development of this class of constitutive models, and on the numerical techniques allowing their integration for the simulation of engineering boundary value problems.

- *Constitutive modeling of composite materials*

  The main objective of this research is the development of constitutive models for composite materials, in particular for syntactic foams. They are particulate composites in which a thermoset polymer matrix, usually made of vinyl ester or epoxy resin is filled with of hollow spheres, also called balloons. They are usually made by glass, ceramic, or metal. These composites find applications in aerospace and marine systems for their closed-cell microstructure.
  The mechanical behavior of the syntactic foams is reproduced by means of numerical homogenization techniques, based on Finite Element micromechanical simulations of a representative volume (RVE) of composite material.
  To perform these analyses, it is fundamental the modeling of the mechanical behavior both of polymeric materials constituting the matrix, and of the failure of the fillers, typically of brittle type.

- *Constitutive modeling of metals subject to large deformations*

  The goal of this scientific research is the development of constitutive models for metals subject to large deformations, which allow the simulation of metal forming processes

using the Finite Element method. The objective of these simulations in engineering practice is twice. Firstly, using parametric analyses, one will design a productive process that minimizes the costs.
Secondly, especially for cold processes, one can simulate (and the optimize) the mechanical properties of the produced pieces. Especially for this scope, it is fundamental both the correct reproduction of the residual stress profiles in the work pieces, and the accurate modeling of the material mechanical behavior, usually subject during the process to severe loading? unloading cycles with very large plastic strains, difficult to be correctly reproduced numerically.
Finally, these constitutive models should allow the simulation of defects (such as chevron cracks or surface defects) in the work pieces, due for example to wrong combinations of design parameters.

- *Development of analytical solutions for drawing processes*

  This research project is focused on the development of analytical tools for the estimation of the force to cold draw wires or rectangular plates. These analytical models must take into account the different combination of die geometries, area reduction, and the friction conditions.
  Such models are very important to the design of drawing metal forming processes. In fact, even if the numerical analyses are probably the most powerful tool today available to optimize metal forming processes, the design of a real industrial process involves parametric analyses, which require a single numerical simulation for each combination of the process parameters. For this reason, analytical models, allowing (at least) an initial design of the process, are very important.
  Moreover, it should be noted that the most adopted design procedures of metal forming processes in the engineering practice are still based on the limit analysis technique.
  The developed analytical solutions are based on the limit analysis techniques.

- *Coupled fluid-structure numerical simulations for acoustic problems*

  This research project involves the numerical simulation of coupled (acoustic) fluid-structure problems using the Finite Element method.
  In particular, in this scientific research it is employed the Finite Element method to design the acoustic response of devices for the correction of rooms for the listening of the music, especially at mid and low frequencies.
  The Finite Element numerical simulations, based on dynamic analyses both in the time and in the frequency domains, constitute the basis to develop simplified analytical models that can be employed in the engineering practice to design such acoustic devices.

Research activity for private companie

- December 2011. Team member of the research project “Utilizzo di tecniche analitiche e numeriche innovative per la progettazione di stampi per trafila con angolo di trafila

ottimizzato.". Scientific responsability: Prof. Francesco Genna. Client: Trafilix S.p.a. - Esine (BS). Total import: 50.000 euro+VAT. Duration: 1 year.

- June 2017. Scientific reponsability of the research project: "Indagini diagnostiche e studio dell'organizzazione strutturale degli edifici strategici (municipio, scuole elementari e medie, scuola dell'infanzia) nel Comune di Bienno, con particolare riferimento al loro comportamento sismico.". Client: Comune di Bienno. Total import: 28.000 euro+VAT. Duration: 2 years

- August 2018. Scientific reponsability of the research project: "Analisi del comportamento meccanico di pannelli in lamiera per la formazione di piscine interrate". Client: A&T Europe Spa – Castiglione delle Stiviere (MN). Total import: 7.000,00 euro+VAT. Duration: 1 month

Publications

Andrea Panteghini is author or coauthor of:

- 27 papers on international journals (one invited paper)
- 3 books
- 1 chapter in book
- 2 papers on national or international congress
- 22 abstracts and presentations
- 1 technical report
- 1 discussion

Papers on International Journals

- A. Panteghini, A. Feriani, E.A. Piana, N.B. Roozen. Evaluation of the sound reduction index of flat panels through FE models accounting for fluid-structure interaction: stochastic versus plane wave superposition methods. *J Sound Vib*, 509(9), 116133 2021. DOI: 10.1016/j.jsv.2021.116133

- A. Panteghini, L. Bardella. Modelling the cyclic torsion of polycrystalline micron-sized copper wires by distortion gradient plasticity. *Philos Mag*, 100(18): 2352-2364, 2020. DOI: 10.1080/14786435.2020.1766144

- A. Panteghini, L. Bardella, C.F. Niordson. A potential for higher-order phenomenological strain gradient plasticity to predict reliable response under non-proportional loading". *Proc R Soc A*, 2019. DOI: 10.1098/rspa.2019.0258.

- R. Lagioia, A. Panteghini. The difficult challenge of modelling the non-linear elastic behaviour of soils within a theoretically sound framework. *Int J Numer Anal Met*, 43(11):1978-1994, 2019. DOI: 10.1002/nag.2941

- A. Panteghini, L. Bardella. On the role of higher-order conditions in distortion gradient plasticity. *J Mech Phys Solids*, 118C:293-321, 2018. DOI: 10.1016/j.jmps.2018.05.019

- L. Bardella, G. Perini, A. Panteghini, N. Tessier, N. Gupta, M. Porfiri. Failure of glass-microballoons/thermoset-matrix syntactic foams subject to hydrostatic loading. *Eur J Mech A-Solid*, 70:58-74, 2018. DOI: 10.1016/j.euromechsol.2018.01.007

- A. Panteghini, R. Lagioia. An approach for providing quasi-convexity to yield functions and a generalized implicit integration scheme for isotropic constitutive models based on two unknowns. *Int J Numer Anal Met*, 42(6):829-855, 2018. DOI: 10.1002/nag.2767

- A. Panteghini, R. Lagioia. An extended modified Cam-Clay yield surface for arbitrary meridional and deviatoric shapes retaining full convexity and double homothety. *Geotechnique*, 68(7):590-601, 2018. DOI: 10.1680/jgeot.17.P.016

- R. Lagioia, A. Panteghini. Accounting for specific failure criteria in the slip-line method for plane strain problems. *Geotech Lett*, Vol. 7(2), 2017, 1-6. DOI: 10.1680/jgele.17.00014

- A. Shams, A. Panteghini, L. Bardella, M. Porfiri. A micromechanical model to study failure of polymer-glass syntactic foams at high strain rates. *Comput Mater Sci*, Vol.135 (July), 2017, 189-204. DOI: 10.1016/j.commatsci.2017.04.007

- A. Panteghini, L. Bardella. Structural theory and finite element modelling of linear elastic sandwich beams subject to severe boundary conditions. *Eur J Mech A-Solid*, Vol. 61, 2017, 393-407. DOI: 10.1016/j.euromechsol.2016.10.012

- A. Panteghini, L. Bardella. On the Finite Element implementation of higher-order gradient plasticity, with focus on theories based on plastic distortion incompatibility. *Comput Method Appl M*, Vol. 310, 2016, 840-865. DOI: 10.1016/j.cma.2016.07.045

- R. Lagioia, A. Panteghini. On the existence of a unique class of yield and failure criteria comprising Tresca, von Mises, Drucker-Prager, Mohr-Coulomb, Galileo-Rankine, Matsuoka-Nakai and Lade-Duncan. *Proc R Soc A*, Vol. 472(2185), 2016, 20150713. DOI: 10.1098/rspa.2015.0713

- L. Bardella, A. Panteghini. Modelling the torsion of thin metal wires by distortion gradient plasticity. *J Mech Phys Solids*, Vol. 78, 2015, 467-492. DOI: 10.1016/j.jmps.2015.03.003

- A. Panteghini, L. Bardella. On the compressive strength of glass microballoons-based syntactic foams. *Mech Mater*, Vol. 82, 2014, 63-77. DOI: 10.1016/j.mechmat.2014.12.005

- R. Lagioia, A. Panteghini, A.M. Puzrin. The "I3" generalization of the Galileo-Rankine tension criterion. *Proc R Soc A*, Vol. 470(2172), 2014, 20140568. DOI: 10.1098/rspa.2014.0568

- A. Panteghini. An analytical solution for the estimation of the drawing force in three dimensional plate drawing processes. *Int J Mech Sci*, Vol. 84C, 2014, 147-157. DOI: 10.1016/j.ijmecsci.2014.04.012

- L. Bardella, F. Malanca, P. Ponzo, A. Panteghini, M. Porfiri. A micromechanical model for quasi-brittle compressive failure of glass-microballoons/thermoset-matrix syntactic foams. J *Eur Ceram Soc*, Vol. 34(11), 2014, 2605-2616. DOI: 10.1016/j.jeurceramsoc.2013.11.045

- R. Lagioia, A. Panteghini. The influence of the plastic potential on plane strain failure. *Int J Numer Anal Met*, Vol. 38(8), 2014, 844-862. DOI: 10.1002/nag.2236

- A. Panteghini, R. Lagioia. A fully convex reformulation of the original Matsuoka-Nakai failure criterion and its implicit numerically efficient integration algorithm. *Int J Numer Anal Met*, Vol. 38(6), 2014, 593-614. DOI: 10.1002/nag.2228

- A. Panteghini, R. Lagioia. A single numerically efficient equation for approximating the Mohr-Coulomb and the Matsuoka-Nakai failure criteria with rounded edges and apex. *Int J Numer Anal Met*, Vol. 38(4), 2014, 349-369. DOI: 10.1002/nag.2208

- L. Bardella, J. Segurado, A. Panteghini, J. Llorca. Latent hardening size effect in small-scale plasticity. *Model Simul Mater Sci Eng*, Vol. 21, 2013, 055009. DOI: 10.1088/0965-0393/21/5/055009

- A. Panteghini, F. Genna. Numerical integration of a pressure-dependent, non-linear kinematic hardening constitutive model for large strain cyclic plasticity of metals. *Int J Numer Meth Eng*, Vol. 89(8), 2012, 1047-1067. DOI: 10.1002/nme.3290

- A. Panteghini, F. Genna. Effects of the strain-hardening law in the numerical simulation of wire drawing processes. *Comput Mater Sci*, Vol. 49, 2010, 236-242. DOI: 10.1016/j.commatsci.2010.05.002

- A. Panteghini, F. Genna. An engineering analytical approach to the design of cold wire drawing processes for strain-hardening materials. *Int J Mater Form*, Vol. 3, 2010, 279-289. DOI: 10.1007/s12289-010-0691-6

- A. Panteghini, F. Ancellotti, F. Genna. Design of perforated panels for low frequency acoustic correction of rooms for listening to music. *NVWW*, Vol. 39(11), 2008, 11-19. *Su invito*. DOI: 10.1260/095745608787186388

- A. Panteghini, F. Genna, E. Piana. Analysis of a perforated panel for the correction of low frequency resonances in medium size rooms. *Appl Acoust*, Vol. 68, 2007, 1086-1103. DOI: 10.1016/j.apacoust.2006.06.003

Discussions

- A. Panteghini, R. Lagioia. Discussion: A smooth hyperbolic approximation to the generalised Classical yield function, including a true inner rounding of the Mohr-Coulomb deviatoric section by Alexander M. Lester and Scott W. Sloan. *Comput Geotech*, 106(2):347-349, 2019. DOI: 10.1016/j.compgeo.2018.07.022

Books

- A. Panteghini. Lezioni di Scienza delle Costruzioni. Ed. Snoopy, Brescia, 2020. ISBN:978-88-89252-51-2

- A. Panteghini. Introduzione alla meccanica dei solidi. Ed. Snoopy, Brescia, 2016. ISBN:978-88-89252-35-2

- A. Panteghini. Numerical simulations of multipass wire drawing processes. Ed. Starrylink, Brescia, 2008. ISBN:978-88-96225-08-0

Chapters in Books

- A. Carini, A. Panteghini. Monitoraggio e analisi strutturale. In: Conservazione programmata. La chiesa della Disciplina di S. Croce in Verolanuova. A cura di Barbara Scala. Nardini Editore, Firenze, 2015. ISBN:978-88-404-4370-6

Papers on National and International Conference Proceedings

- A. Panteghini, G. Metelli, G.A. Plizzari. Studio numerico e sperimentale del processo di piegatura di barre di grande diametro. Atti del XXVI Convegno Nazionale AICAP 2011. Padova, 19-21 maggio 2011

- A. Panteghini - F. Genna - E. Piana. Analysis of a Perforated Panel for the Correction of Low Frequency Resonances in Domestic Rooms. ECCM 2006: III European Conference on Computational Mechanics, Lisbon, Portugal 5-8 June 2006. Proceedings edited by Mota Soares, C.A., Martins, J.A.C., Rodrigues, H.C., Ambrosio, J.A.C., Pina, C.A.B., Mota Soares, C.M., Pereira, E.B.R., Folgado, J. ISBN:978-1-4020-4994-1

Abstracts on National and International Conference Proceedings

- L. Bardella, A. Panteghini. Distortion gradient plasticity modelling of the small-scale behaviour of polycrystalline metals under non-proportional loading. 2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials (IWPDF 2021). Ankara (Turkey, on-line), 18-20 August 2021.

- L. Bardella, A. Panteghini. Distortion gradient plasticity modelling of the small-scale behaviour of metals under non-proportional loading. IUTAM Symposium on Generalized continua emerging from microstructures. Paris (France), 19-23 July 2021.

- L. Bardella, G. Perini, A. Panteghini, N. Tessier, N. Gupta, M. Porfiri. Failure of glass-microballoons/thermoset-matrix syntactic foams subject to hydrostatic loading. Workshop on Mechanical and Acoustic Properties of Syntactic Foams. Manchester (UK). 10-11 October 2019.

- L. Bardella, A. Panteghini, C.F. Niordson. A potential for strain gradient plasticity simulations free from unexpected interruptions of plastic flow under non-proportional

loading. AIMETA 2019: XXIV Italian Conference on Theoretical and Applied Mechanics. Rome (Italy). 15-19 September 2019

- A. Panteghini, L. Bardella, C.F. Niordson. A mixed energetic/dissipative higher-order potential for strain-gradient plasticity under non-proportional loading. XV International Conference on Computational Plasticity (COMPLAS 2019). Barcellona (Spain). Invited contribution in the Thematic Session "IS-Length Scales in Plasticity and Fracture". 3-5 September 2019.

- A. Panteghini, L. Bardella. H(curl) finite element analysis of distortion gradient plasicity. *22th Italian Conference on Computational Mechanics and IX Meeting of the AIMETA Materials Group (GIMC-GMA2018)*. Ferrara (IT) 13-14 settembre 2018.

- A. Panteghini, L. Bardella. On the mechanical response due to higher-order boundary conditions in distortion gradient plasticity based on dislocation density tensor. *ESMC 2018 – 10th European Solid Mechanics Conference.* Bologna (IT) 2-6 luglio 2018.

- A. Panteghini, L. Bardella. On the finite element implementation of higher-order gradient plasticity theories. *XIV International Conference on Computational Plasticity (COMPLAS 2017)*. Barcellona (Spain). Invited contribution in the Thematic Session "IS-Size-effects in Metal Plasticity". 5-7 September 2017.

- A. Panteghini, L. Bardella. Implicit finite element algorithms for higher-order gradient plasticity theory. 24th International Congress of Theoretical and Applied Mechanics (ICTAM 2016). Montréal (Canada). Invited contribution in the Thematic session "Sizescale Effects in Materials". 21-26 August 2016.

- A. Panteghini, L. Bardella. On the Finite Element implementation of higher-order gradient plasticity, with focus on theories based on plastic distortion incompatibility. GIMC 2016: XXI Italian Conference on Computational Mechanics. Lucca (Italy). 27-29 July 2016. Proceedings edited by M. Paggi, A. Bacigalupo, S. Bennati, C. Borri, M. Corrado, A. Gizzi, P. Valvo

- R. Lagioia, A. Panteghini, A.M. Puzrin. The 'I3' generalization of the Galileo-Rankine tension criterion. AIMETA 2015: XXII Italian Conference on Theoretical and Applied Mechanics. Genova (Italy). 14-17 September 2015. Proceedings edited by L. Gambarotta and A. Morro. ISBN: 978-88-97752-52-3

- L. Bardella, A. Panteghini. Modelling the torsion of thin metal wires by phenomenological distortion gradient plasticity. AIMETA 2015: XXII Italian Conference on Theoretical and Applied Mechanics. Genova (Italy). 14-17 September 2015. Proceedings edited by L. Gambarotta and A. Morro. ISBN: 978-88-97752-52-3

- L. Bardella, A. Panteghini. Modelling the torsion of thin metal wires by phenomenological distortion gradient plasticity. KEYNOTE presentation at the 9th European Solid Mechanics Conference, Madrid (Spain). 6-10 July 2015

- L. Bardella, A. Panteghini. On the compressive strength of glass-microballoons/thermoset-matrix syntactic foams. Book of Abstracts: State of the art and challenges in thermal and mechanical modelling of ceramic materials, Trento

(Italy), March 20, 2015

- L. Bardella, A. Panteghini. On the compressive strength of glass-microballoons/thermoset-matrix syntactic foams. XX Italian Conference on Computational Mechanics and VII Meeting of the AIMETA Materials Group (GIMC-GMA2014), Cassino (Italy). 11-13 June 2014

- A. Panteghini, R. Lagioia. A numerically efficient implicit integration algorithm for the Matsuoka-Nakai failure criterion. XX Italian Conference on Computational Mechanics and VII Meeting of the AIMETA Materials Group (GIMC-GMA2014), Cassino (Italy). 11-13 June 2014

- L. Bardella, J. Segurado, A. Panteghini, J. LLorca. Latent hardening size effect in small-scale plasticity. EUROMECH Colloquium 563 on Generalized Continua and Their Application to the Design of Composites and Metamaterials, Cisterna di Latina (Italy). 17-21 March 2014

- L. Bardella, J. Segurado, A. Panteghini, J. Llorca. Latent hardening size effect in small-scale plasticity. XII International Conference on Computational Plasticity. Fundamentals and Applications. Invited session "Material Size-effects in Plasticity" organised by Viggo Tvergaard and Christian F. Niordson. Barcelona (Spain) 3-5 September 2013. Proceedings edited by E. Onate, D.R.J. Owen, D. Peric, B. Suarez. ISBN: 978-84-941531-5-0

- L. Bardella, F. Malanca, P. Ponzo, A. Panteghini, M. Porfiri. Micromechanical finite element modelling of the quasi-brittle failure of syntactic foams subject to uniaxial compression. CERMODEL 2013, Trento (Italy). 10-12 July 2013

- R. Lagioia, A. Panteghini. Failure criteria for geomaterials and plane strain collapse. CERMODEL 2013, Trento (Italy). 10-12 July 2013.

- A. Panteghini, F. Genna. Some constituite modelling issues in wire drawing analysis simulation of wire drawing processes. APM 2010, St. Petersburg (Russia), 1-5 July 2010

- A. Panteghini, F. Genna, A. Franchi. Residual stresses in multi-pass cold drawn high strength steel wires. AIMETA 2007: XVIII Italian Conference on Theoretical and Applied Mechanics. Brescia (Italy). 11-14 September 2007. Proceedings edited by A. Carini, G. Mimmi, R. Piva. ISBN: 978-88-89720-69-1

Technical Reports

- G. Metelli, L. Cominoli, A. Panteghini, G. Plizzari. Studio numerico e sperimentale sull'impiego di barre nervate di grande diametro in strutture in cemento armato. Technical Report, Vol. 11, 2010, Dipartimento di Ingegneria Civile, Architettura, Territorio e Ambiente, Università degli Studi di Brescia

Citation Metrics

Google Scholar:

- *Citations: 511*
- *H-Index: 14*
- *I10-Index: 19*

SCOPUS:

- *Citations: 382*
- *H-Index: 12*
- *I10-Index: 15*

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