

STEFANO VIDOLI

Curriculum Vitae

Rome, December 5th 2018

Part I – General Information

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|------------------|----------------------------|
| Full Name | Stefano Vidoli |
| Citizenship | Italian |
| E-mail | stefano.vidoli@uniroma1.it |
| Spoken Languages | Italian, English, French |

Part II – Education

| Type | Year | Institution | Notes (Degree, Experience,...) |
|-----------------------|------|---------------------------|---|
| University graduation | 1995 | Univ. di Roma La Sapienza | Laurea in Ingegneria Aeronautica (110/110) Title: Strutture spaziali flessibili: Modellazione e simulazione orientate al controllo |
| PhD | 2000 | Univ. di Roma La Sapienza | Dottorato in Meccanica Teorica e Applicata, Title: Structures and control: integrated continuum models |

Part III – Academic Appointments

| Start | End | Institution | Position |
|---------|---------|-----------------------------|--|
| 9/1998 | 12/1998 | Virginia Tech, USA | Research Assistant |
| 2/2000 | 9/2000 | Virginia Tech, USA | Post-doc Research Assistant |
| 11/2001 | 12/2003 | Univ. di Roma La Sapienza | “Assegnista di ricerca” |
| 1/2004 | 11/2011 | Univ. di Roma La Sapienza | “Ricercatore” ICAR/08 |
| 9/2010 | 10/2010 | Univ. Pierre et Marie Curie | Visiting Professor |
| 2/2013 | 8/2015 | Sorbonne Universités | Visiting Member of Institut d’Alembert (Research agreement between Rome La Sapienza et Sorbonne Universités) |
| 12/2011 | today | Univ. di Roma La Sapienza | “Professore Associato” ICAR/08 |

Part IV – Teaching and mentoring experience

IVa – Courses (undergraduate, master levels)

| Year | Institution | Course |
|----------|--|---|
| 2000/01 | Università di Chieti G. D'Annunzio, Facoltà di Architettura (Contratto) | Scienza delle Costruzioni (6CFU) |
| 2002/03 | Università Roma Tre, Facoltà di Ingegneria (Contratto) | Propagazione Ondosa in Mezzi Continui (6CFU) |
| 2003/04 | Università Roma Tre Facoltà di Ingegneria (Contratto) | Meccanica computazionale delle strutture (6CFU) |
| 2003/08 | Università Roma La Sapienza, Laurea Ing. Meccanica e Aeronautica, Latina | Meccanica dei Solidi (6CFU) |
| 2008/13 | Università Roma La Sapienza, Laurea Ing. Ambiente e Territorio, Latina | Scienza delle Costruzioni (9CFU) |
| 2013/15 | Università Roma La Sapienza, Laurea Ing. Civile e Industriale, Latina | Scienza delle Costruzioni (9CFU) |
| 2008/12 | Università Roma La Sapienza, Laurea Magistrale Ing. Civile | Strutture Bidimensionali (6CFU) |
| 2012/14 | Università Roma La Sapienza, Laurea Ingegneria Civile | Scienza delle Costruzioni II (9CFU) |
| 2015/... | Università Roma La Sapienza, Laurea Ingegneria Elettrotecnica | Scienza delle Costruzioni (3CFU) |
| 2015/... | Università Roma La Sapienza, Laurea Ingegneria Civile | Scienza delle Costruzioni I (6CFU) |
| 2018/... | Università Roma La Sapienza, Computational Mechanics (Double degree with Sorbonne Univ.) | Variational Methods in Computational Mechanics (6CFU) |

IVb – Courses (PhD level)

| Year | Institution | Course |
|--------|--|--|
| 7/2015 | Institut d'Alembert, Univ. Pierre et Marie Curie | Piezoelectric actuation of shallow shells with vanishing stiffness (8 hours) |
| 4/2016 | PhD School "Ingegneria Strutturale e Geotecnica" | Modelli di gusci alla Koiter: dalla modellazione alle approssimazioni numeriche (30 hours) |
| 2/2017 | Institut d'Alembert, Univ. Pierre et Marie Curie | Actuation of shallow shells with vanishing stiffness (16 hours) |
| 4/2017 | PhD School "Ingegneria Strutturale e Geotecnica" | Variational methods in continuum mechanics (6 hours) |
| 3/2018 | Institut d'Alembert, Sorbonne Universités | Nonlinear Koiter shells and von Karman approximation (16 hours) |
| 4/2018 | PhD School "Ingegneria Strutturale e Geotecnica" | Meccanica del Continuo (18 hours) |

IVc – Mentoring

Supervision of Master theses. A short selection:

12/2008: Andrès Léon Baldelli: “Approccio variazionale alla meccanica della frattura: multifessurazione e delaminazione di film sottili”, Master in Mechanical Engineering.

The thesis has won the Corrado Foschi Prize 2011. Currently ALB is Researcher CNRS at ENSTA Paris

10/2016: Marcello Guglielmi: “Dinamica di gusci sottili multistabili”, Master in Civil Engineering.

10/2017: Vittorio Dragone “Caratterizzazione sperimentale della risposta a trazione di un calcestruzzo fibro-rinforzato”, Master in Civil Engineering. The thesis has been finalist in the Zwick Science Award 2017.

Supervision of foreign students stages:

7/2016: Flore Lawrence (Polytech Paris): Strain testing on Zwick Proline Z250.

8/2018: Thilbault Fromant (ENSTA Paris): Conception de réseaux neuronaux de structures multistables .

Supervision of PhD theses:

3/2010: Jacopo Ciambella: Experimental testing and nonlinear viscoelastic modeling of filled rubbers, PhD Ingegneria Strutturale e Geotecnica, (Best PhD Thesis Prize 2010, Sapienza Università Editrice)

JC is currently Ricercatore ICAR08 at Università di Roma La Sapienza

7/2013: Roberto Alessi: A variational approach to ductile fracture, PhD Ingegneria Strutturale e Geotecnica. Thesis with joint supervision (cotutela) with Ecole Polytechnique, French supervisor: Prof. J.J. Marigo

RA is currently “Ricercatore a tempo determinato ICAR08” at Università di Pisa

9/2014: Matteo Brunetti: Gusci ribassati multistabili: ottimizzazione di forma e materiale in presenza di vincoli di bordo, PhD Ingegneria Strutturale e Geotecnica.

MB is currently a PostDoc at Università di Roma La Sapienza

Supervision of PostDoc:

(1/02/2010-31/01/2012) Jacopo Ciambella: Viscoelasticità di materiali polimerici, Dip. Ingegneria Strutturale e Geotecnica, Roma La Sapienza.

(1/4/2013-31/3/2015) Roberto Alessi: Modellazione e analisi di strutture multistabili, Dip. Ingegneria Strutturale e Geotecnica, Roma La Sapienza

(1/2/2014-30/1/2016) Matteo Brunetti: Multistability of thin shells, Dip. Ingegneria Strutturale e Geotecnica, Roma La Sapienza

(1/4/2017-today) Matteo Brunetti: Optimization of material properties to design multistable thin shells, Dip. Ingegneria Strutturale e Geotecnica, Roma La Sapienza.

Part V - Society memberships, Awards, Achievements and Patents

| Year | Title |
|----------|--|
| 1997/... | Member of GNFM (Italian National Association of Mathematical Physics) |
| 2003 | International Patent US 6546316. Two dimensional network of actuators for the control of damping vibrations. Co-inventors: E. Henneke, F. dell'Isola |
| 2009 | First recipient of the AIMETA Junior Prize 2009 in the field "Structural mechanics" (AIMETA is the Italian Association for Applied and Theoretical Mechanics) |
| 2010 | "Professeur invité 2010", Institut d'Alembert, Univ. Pierre et Marie Curie |
| 2012 | Italian qualification to Full Professorship (Abilitazione Scientifica Nazionale: Professore di Prima Fascia nel settore 08/B2 Scienza delle Costruzioni, Tornata 2012) https://abilitazione.cineca.it/mini-sterio.php/public/esitoAbilitati/settore/08%252FB2/fascia/1 |
| 2016 | Italian qualification to Full Professorship (Abilitazione Scientifica Nazionale: Professore di Prima Fascia nel settore 08/B2 Scienza delle Costruzioni, Tornata Primo Quadrimestre 2016) https://asn16.cineca.it/pubblico/miur/esito-abilitato/08%252FB2/1/1 |
| 2017/... | Member of SISCO (Società Italiana di Scienza delle Costruzioni) |
| 2017/... | Member of AIMETA (Associazione Italiana di Meccanica Teorica e Applicata) |
| 2017/... | Member of Euromech (European Mechanics Society) |
| 2018 | French qualification to Full Professorship (Qualification Prof.des Universités, Section 60, 18160206070D), 09/02/2018 https://www.galaxie.enseignementsup-recherche.gouv.fr/en-sup/cand_resultats_qualification.htm |
| 2018 | Patent Application (Domanda di brevetto) N. 102018000006527: Metodo per la realizzazione di gusci prestressati a bistabilità controllata. Co-inventor: Matteo Brunetti. Commercial rights transferred to La Sapienza |

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

| Year | Title | Program | Grant value |
|------|--|---|-------------|
| 2001 | Finanziamenti MURST "Progetto Giovani Ricercatori" (PI) | Distributed control techniques with innovative materials | 6.200 Euro |
| 2008 | Progetto Giovani Ricercatori, Gruppo Nazionale Fisica Matematica (PI) | Legami elastici per materiali di secondo gradiente: possibili applicazioni a materiali polimerici | 2.000 Euro |
| 2009 | Progetto di ricerca universitario, Sapienza Università di Roma (PI) | Problemi di multistabilità per strutture e materiali (C26A09B4M5) | 22.300 Euro |
| 2010 | Progetto di ricerca universitario, Sapienza Università di Roma (PI) | Instabilità e multistabilità per strutture e materiali (C26A10HTPB) | 35.000 Euro |
| 2010 | Progetto di ricerca universitario FARI, Sapienza Università di Roma (PI) | Dissipazione e perdite isteretiche nei materiali polimerici con memoria (C26I107LXM) | 7.500 Euro |
| 2013 | Progetto di ricerca universitario, Sapienza Università di Roma (PI) | Multistabilità di strutture e materiali (C26A134E3R) | 8.500 Euro |

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|---------|--|--|--------------|
| 2014 | Progetto Grandi e Medie Attrezzature, Sapienza Università di Roma (PI) | Macchina elettromeccanica per caratterizzazione costitutiva di materiali e strutture (C26G14M7KA) | 42.000 Euro |
| 2015 | Progetto di ricerca AWARDS, Sapienza Università di Roma (PI) | Nonlocal and scale effects in the linear and nonlinear dynamics of structural systems(C26H15T978) | 27.000 Euro |
| 2016/17 | MIUR-DAAD Joint Mobility Program (PI) | Variational approach to fatigue phenomena with phase-field models: modeling, numerics and experiments (57268959) | 18.000 Euro |
| 2014/18 | Agence Nationale Recherche (France) (I) | Slender structures: stability, optimisation, control. (ANR-13-JS09-0009) | 225.000 Euro |

Moreover he has actively participated to the following National and International Research Projects:

- 2003: PRIN03 (Ricerche MIUR di Interesse Nazionale) #2003080575 “Modelli e Fenomeni nella Dinamica di Sistemi Strutturali Complessi: analisi, sperimentazione e controllo”. PI: Prof. F. Vestroni.
- 2004: PAI-Galileo #14383QD Accordi bilateral entre Università di Roma La Sapienza et Université Pierre et Marie Curie, Paris VI. “Composite piezoelectric structures: modelling and experimental testing” PI : Prof. D. Del Vescovo.
- 2005: PRIN05 (Ricerche MIUR di Interesse Nazionale) #2005082902 Dynamics of complex structural systems : analysis, experimental testing and control” PI: Prof. F. Vestroni.
- 2004-06: Joint Program CNR/CNRS #16283 “Smart materials and structures: structural control using distributed piezoelectric transducers and passive electric networks”. PIs: Prof. F. dell’Isola et Prof. J. Pouget
- 2007: Projet Galileo pour l’Université Franco-Italienne”Composite piezoelectric structures for vibration, noise and shape control” PIs : Prof. F. dell’Isola, Prof. J. Pouget.
- 2008: PRIN08 (Ricerche MIUR di Interesse Nazionale) #2008KNHF9Y “Meccanica dei materiali microstrutturati: identificazione multiscala del legame costitutivo e della risposta” PI: Prof. A. Paolone

Part VII – Service and management activities

VIIa – Administrative services

| Year | Description |
|----------|---|
| 2008 | Member of the jury for a Researcher Position at Università degli Studi di Genova, Facoltà di Ingegneria (Commissario in Valutazione Comparativa D.R. n.159 del 26/2/2008, Gazzetta Ufficiale n.19 del 7/3/2008, D.R. 500 del 14/7/2008) |
| 2007/09 | Member of the Quality Assessment Team, Engineering Faculty Univ. Roma La Sapienza |
| 2008/... | Responsible for the Erasmus Exchange Programme between Engineering Faculty, Univ. Roma La Sapienza and Université Pierre et Marie Curie (now Sorbonne Universités) Paris |
| 2009/11 | Member of Restricted Faculty Committee (Giunta), Engineering Faculty, Univ. Roma La Sapienza |
| 2012/16 | Referee for ANVUR (Agenzia Nazionale di Valutazione del sistema Universitario e della Ricerca) (VQR 2004-2010 and VQR 2011-2014) |
| 2018/... | Member of the Faculty/Students Joint Committee (Commissione paritetica) for the Quality Assessment, Engineering Faculty, Univ. Roma La Sapienza |

VIIb – Scientific/Publishing services

| Year | Description |
|----------|---|
| 2009/... | Reviewer for Mathematical Reviews (American Mathematical Society) |
| 2002 | Chairman "Textures in polycrystals, heterogeneity, dislocations and crystal plasticity", Plasticity '02, Aruba |
| 2012 | Organizer with Prof. P.M. Weaver of the MiniSymposium "Adaptive and Smart Structures" ESMC 2012 8th European Solid Mechanics Conference, Graz, Austria |
| 2010/17 | Editorial Board Member of "Smart Materials Research" |
| 2012/15 | Editorial Board Member of "Mathematical Problems in Engineering" |
| 2013/... | Member of PhD School (Collegio del Dottorato) Structural and Geotechnical Engineering, Univ. Roma La Sapienza |
| 2014/... | Review Editor for Frontiers in Mechanical Engineering and Materials |
| 9/2017 | Certified on Publons (http://publons.com/a/470733) Top reviewer for Sapienza University of Rome (Mathematics, Engineering, Materials Science fields) |
| 2012/18 | Certified on Publons (http://publons.com/a/470733): 50 reviews for International Journals including Journal of the Mechanics and Physics of Solids (2), Proceedings of the Royal Society A (2), Composite Structures (5), Journal of Sound and Vibration (5), European Journal of Mechanics-A (4) ... |
| 2018/... | Member of the Organizing Committee for AIMETA 2019 |

Moreover he has been invited member of the following PhD juries:

- 2013 Roberto Alessi: Variational approach to ductile fracture (Ecole Polytechnique - La Sapienza).
- 2015 Duc Le Trung: Modèle d'endommagement à gradient: approche par homogénéisation (Sorbonne Universités).
- 2016 Walid Hamouche: Contrôle de forme de coques multistables: modélisation, optimisation et mise en œuvre (Sorbonne Universités).
- 2018 Medhi Tha: Modélisation d'une poutre à microstructure bistable (Sorbonne Universités).

Part VIII – Research Activities

What follows is a brief description of the main subjects in his current and past research activity. The citations therein refer to publications listed in Part X.

Multistable/shape-morphing structures

Main Collaborations: K. Seffen (Cambridge), P. Weaver (Bristol Univ.), C. Maurini and A. Vincenti (UPMC)

| Keywords | Brief Description |
|------------------------|--|
| Multistable structures | Morphing structures are capable to change their configuration during their operating life in response to external inputs. From the mathematical point of view these structures possess two or more stable equilibria and are therefore characterized by multi-well energy functionals. We started investigating if completely stable transitions are possible between the two stable equilibria of a buckled beam; this is indeed the case if at least two independent actuation parameters are used. |
| Shape morphing | |
| Plates and shells | |

Later we have turned our attention to multistable shells: playing with their initial curvature and their material anisotropy, one can indeed obtain a very complex multistable scenario where the shell can be monostable, bistable or tristable. Using a 3dofs nonlinear model, we did predict the existence of doubly-curved shells tristability in [15]; this was therefore experimentally confirmed few years later [7]. More recently we have worked on reduction methods to deduce, from the shell PDEs, simplified discrete nonlinear models which can account for the boundary conditions [8]. This has opened the field to the design and to the shape optimization of shells which remains multistable under the imposition of real boundary conditions [3,4]. We have also proven that a special class of such morphing shells can be efficiently actuated even with vanishing forces [2]; a similar actuation could be applied also at the micro-scales to produce gear-less micro-propulsors.

Ongoing collaborations:

- A. De Simone (SISSA-S.S.Sant’Anna), C. Maurini (UPMC), G. Corsi (SISSA): The rotational Taylor sheet for Stoke’s flows (*manuscript in preparation*)
- B. Roman (ESPCI), C. Maurini (UPMC), M. Rubino (Sapienza) Refined FE element models of baro-morphs: bio-inspired pneumatic shape morphing shells (*Master thesis in preparation*)
- A. Favata (Sapienza), M. Brunetti (Sapienza): From von Kármán plates to enhanced one-dimensional rods: the role of compatibility (*manuscript in preparation*)
- C. Maurini (UPMC), A. Vincenti (UPMC), S. Chibbaro (UPMC): Dynamics and energy-harvesting properties of zero-stiffness shells (*manuscript in preparation*)

Variational models in the mechanics of ductile fracture

Main Collaborations: J.J. Marigo (E. Polytechnique), R. Alessi, C. Maurini (UPMC)

| Keywords | Brief Description |
|---------------------|--|
| Damage and fracture | <p>Since the seminal work of (Francfort, Marigo, JMPS 1998), gradient damage models have been successfully used to describe the behavior of brittle and quasi-brittle materials. With the aim of modelling the behavior of ductile materials we have considered in [6] an energy functional accounting not only for the damage field but also for dissipation due to plastic deformations. Suitable constitutive choices on how the plastic yield stress decreases with damage, allow us to obtain a rich variety of coupled responses [5].</p> <p>Since recent results have proven the Gamma-convergence of our model to cohesive fracture models, a lot of interest and effort is currently devoted to include, within the variational approach, the description of phenomena typical of ductile fracture.</p> |
| Variational methods | |
| Nonlocal models | |

Ongoing collaborations:

- J.J. Marigo (E. Polytechnique), B. Bourdin (LSU), C. Maurini(UPMC), R. Alessi (Univ. Pisa): Variational phase-field models of ductile fracture: two and three-dimensional numerical experiments (*manuscript in preparation*)
- B. Bourdin (LSU), L. de Lorenzis (TU Braunschweig): Phase fields of fracture, Banff International Research Center, March 2019 (*by-invitation workshop*)
- A. Amorosi, F. Rollo (Sapienza): Thermodynamically consistent models for the plasticity flow in saturated soils

Strain-gradient elasticity and its applications in fracture mechanics

Main collaborations: G. Sciarra (E.C. Nantes), J.J. Marigo (E. Polytechnique), F. dell’Isola (Sapienza)

| Keywords | Brief Description |
|----------------------|--|
| Strain gradient | <p>In strain-gradient elasticity, an isotropic elastic solid is characterized not only by the standard Lamé constants but also by 5 additional material parameters (the so-called characteristic lengths) [14]. The role of these lengths is to penalize, with five different weights, the gradients of the strain field. It is well known that a similar theory is well suited to study the stress and strain localization phenomena near singular points (say, for instance, near the apices of cracks). As the ratio between the characteristic lengths are varied the actual mode of deformation changes. Indeed it can be shown that the strain-gradient effect is equivalent to a distribution of elastic cohesive forces near the crack tip [9,10]. We have recently proved that using strain-gradient elasticity to regularize softening models of damage mechanics is a quite difficult task. With quadratic costs on the strain-gradient terms, it seems impossible to create a crack and associate to its nucleation a well-defined material toughness (Griffith theory) [1].</p> |
| Stress concentration | |
| Nonlocal models | |

Viscoelasticity of rubber and soft materials

Main collaborations: A. Paolone, J. Ciambella (Sapienza)

| Keywords | Brief Description |
|--------------------|--|
| Viscoelasticity | <p>Few years ago we had a scientific cooperation with the Bridgestone Research Center in Aprilia near Rome. The goal was to efficiently characterize the energy dissipation in the low-frequency deformations of rubber-like materials. It turns out that the Prony Series, one of the most used rheological models, is not the best candidate to this aim. Indeed we have proved that every rheological model characterized by an exponential decay of the material memory does not have the necessary resolution to describe the low frequency behavior of many soft materials [11,13]. Thus the identification of the storage and loss moduli of rubbers and soft materials does necessarily require the use of fractional kernels.</p> |
| Rheological models | |
| Fractional kernels | |

High-order shear and normal deformable plate theories

Main collaborations: R.C. Batra (Virginia Tech), F. Vestroni (Sapienza)

| Keywords | Brief Description |
|------------------------------|--|
| Higher order Plates | <p>During my permanence at Virginia Tech with Prof. Batra, we investigated the use of mixed variational principles, à la Hellinger–Reissner, to systematically derive, from the three-dimensional Cauchy theory, the balance equations and constitutive relations of a plate.</p> <p>We found a systematic and algorithmic way to construct a Transverse-Shear and Normal-Deformable plate Theory of arbitrary order in the thickness direction without the need of any correction factor.</p> <p>Similar high-order plate theories could be characterized by a relevant number of degrees of freedom in each point. However after studying the decaying properties of plane waves travelling in such high-order plates we were able to formulate a rigorous ordering of the relative importance of the kinematical descriptors.</p> |
| Shear/Normal deformable | |
| Mixed variational principles | |

Actuators networks for effective multi-modal structural control

Main collaborations: F. dell’Isola (Sapienza), M. Porfiri (NewYork Univ.), C. Maurini (UPMC)

| Keywords | Brief Description |
|------------------------------|--|
| Structural control | <p>Since the beginning of my PhD thesis in 1998, we have been working for several years, to an effective and truly multi-modal method for structural vibration control. Once a distributed set of actuators (for instance a set of piezoelectric patches) is glued to the structure, the idea was to suitably design the electric network interconnecting them. In particular if the interconnecting network is designed to be analog of the underlying structure, one is able to trigger an internal resonance between the structural and electric modes: a very efficient way to transfer the energy from mechanical to electric form.</p> <p>The problem is therefore transformed in finding the analog circuits of the main structural members (Euler beam, torsional shaft, Kirchhoff plate ...) and actually generalizes to the multi-modal case the tuned-mass resonant oscillator.</p> |
| Tuned-mass resonance | |
| Electro-mechanical analogies | |

Part IX – Summary of Scientific Achievements

| Product type | Number | Data Base | Start | End |
|----------------------|--------|---|-------|------|
| Journal papers | 42 | Scopus | 1998 | 2018 |
| Conference papers | 7 | Scopus | 1997 | 2012 |
| Book chapters [sci.] | 2 | Scopus | 1998 | 2018 |
| Books [teaching] | 2 | http://books.google.it | 1999 | 2009 |

| | | |
|-------------------------------------|--------|------------------|
| Total Impact factor* | 103.86 | |
| Average Impact factor* | 2.47 | = 103.86/42 |
| Total Citations | 1170 | |
| Total Citations (Journal papers) | 1161 | |
| Average Citations | 22.50 | = 1170/52 |
| Average Citations per Journal paper | 27.64 | = 1161/42 |
| Hirsch (H) index | 20 | |
| Normalized H index** | 1.0 | = 20/(2018-1998) |

*The total and average impact factors (IF) have been computed extracting the IF of each article at the year of publication. To this aim the InCites Journal Citation Reports has been used (<http://jcr.incites.thomsonreuters.com>)

**H index divided by the academic seniority.

Part X– Selected Publications (MAX 15)

1. Strain-gradient vs damage-gradient regularizations of softening damage models. Le, D.T., Marigo, J.-J., Maurini, C., Vidoli, S. (2018) *Computer Methods in Applied Mechanics and Engineering*, 340, pp. 424-450. Not cited. IF at pub. year: 4.441, Current IF: 4.441
2. Multi-parameter actuation of a neutrally stable shell: a flexible gear-less motor. Hamouche, W., Maurini, C., Vidoli, S., Vincenti, A. (2017) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 473 (2204), art. no. 20170364. Cited 4 times. IF at pub. Year: 2.41, Current IF: 2.410
3. Eversion of bistable shells under magnetic actuation: A model of nonlinear shapes. Seffen, K.A., Vidoli, S. (2016) *Smart Materials and Structures*, 25 (6), art. no. 065010. Cited 8 times. IF at pub. Year: 2.909, Current IF: 2.963
4. A class of morphing shell structures satisfying clamped boundary conditions. Brunetti, M., Vincenti, A., Vidoli, S. (2016) *International Journal of Solids and Structures*, 82, pp. 47-55. Cited 6 times. IF at pub. Year: 2.760, Current IF: 2.566
5. Gradient damage models coupled with plasticity: Variational formulation and main properties. Alessi, R., Marigo, J.-J., Vidoli, S. (2015) *Mechanics of Materials*, 80, pp. 351-367. Cited 47 times. IF at pub. Year: 2.636, Current IF: 2.697
6. Gradient Damage Models Coupled with Plasticity and Nucleation of Cohesive Cracks, Alessi, R., Marigo, J.-J., Vidoli, S. (2014) *Archive for Rational Mechanics and Analysis*, 214 (2), pp. 575-615. Cited 31 times. IF at pub. Year: 2.219, Current IF: 2.448
7. Tristability of an orthotropic doubly curved shell. Coburn, B.H., Pirrera, A., Weaver, P.M., Vidoli, S. (2013) *Composite Structures*, 96, pp. 446-454. Cited 28 times. IF at pub. Year: 3.120, Current IF: 4.101
8. Discrete approximations of the Föppl-Von Kármán shell model: From coarse to more refined models Vidoli, S. (2013) *International Journal of Solids and Structures*, 50 (9), pp. 1241-1252. Cited 25 times. IF at pub. Year: 2.035, Current IF: 2.566
9. Asymptotic fracture modes in strain-gradient elasticity: Size effects and characteristic lengths for isotropic materials. Sciarra, G., Vidoli, S. (2013) *Journal of Elasticity*, 113 (1), pp. 27-53. Cited 16 times. IF at pub. Year: 1.043, Current IF: 1.650
10. The role of edge forces in conservation laws and energy release rates of strain-gradient solids. Sciarra, G., Vidoli, S. (2012) *Mathematics and Mechanics of Solids*, 17 (3), pp. 266-278. Cited 6 times. IF at pub. Year: 0.814, Current IF: 2.545
11. Memory decay rates of viscoelastic solids: Not too slow, but not too fast either. Ciambella, J., Paolone, A., Vidoli, S. (2011) *Rheologica Acta*, 50 (7-8), pp. 661-674. Cited 6 times. IF at pub. Year: 2.027, Current IF: 1.833
12. Multiparameter actuation for shape control of bistable composite plates. Fernandes, A., Maurini, C., Vidoli, S. (2010) *International Journal of Solids and Structures*, 47 (10), pp. 1449-1458. Cited 34 times. IF at pub. Year: 1.677, Current IF: 2.566
13. A comparison of nonlinear integral-based viscoelastic models through compression tests on filled rubber. Ciambella, J., Paolone, A., Vidoli, S. (2010) *Mechanics of Materials*, 42 (10), pp. 932-944. Cited 29 times. IF at pub. Year: 1.911, Current IF: 2.697
14. Generalized Hooke's law for isotropic second gradient materials. Dell'Isola, F., Sciarra, G., Vidoli, S. (2009) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 465 (2107), pp. 2177-2196. Cited 117 times. IF at pub. Year: 1.702, Current IF: 2.410
15. Tristability of thin orthotropic shells with uniform initial curvature. Vidoli, S., Maurini, C. (2008) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 464 (2099), pp. 2949-2966. Cited 45 times. IF at pub. Year: 1.705, Current IF: 2.410

Part XI – List of all papers published in Peer Reviewed International Journals

1. Higher-order piezoelectric plate theory derived from a three-dimensional variational principle. Batra, R.C., Vidoli, S. (2002) *AIAA Journal*, 40 (1), pp. 91-104. Cited 157 times. IF at pub. Year: 0.782, Current IF: 1.556
2. Generalized Hooke's law for isotropic second gradient materials. Dell'Isola, F., Sciarra, G., Vidoli, S. (2009) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 465 (2107), pp. 2177-2196. Cited 117 times. IF at pub. Year: 1.702, Current IF: 2.410
3. Effector T-cell trafficking between the leptomeninges and the cerebrospinal fluid. Schläger, C., Körner, H., Krueger, M., Vidoli, S., Haberl, M., Mielke, D., Brylla, E., Issekutz, T., Cabanäs, C., Nelson, P.J., Ziemssen, T., Rohde, V., Bechmann, I., Lodygin, D., Odoardi, F., Flügel, A. (2016) *Nature*, 530 (7590), pp. 349-353. Cited 69 times. IF at pub. Year: 40.137, Current IF: 41.577
4. Vibration control in plates by uniformly distributed PZT actuators interconnected via electric networks. Vidoli, S., Dell'Isola, F. (2001) *European Journal of Mechanics, A/Solids*, 20 (3), pp. 435-456. Cited 68 times. IF at pub. Year: 0.843, Current IF: 2.881
5. Continuum modelling of piezoelectromechanical truss beams: An application to vibration damping. Dell'Isola, F., Vidoli, S. (1998) *Archive of Applied Mechanics*, 68 (1), pp. 1-19. Cited 65 times. IF at pub. Year: 0.557, Current IF: 1.467
6. Plane wave solutions and modal analysis in higher order shear and normal deformable plate theories. Batra, R.C., Vidoli, S., Vestroni, F. (2002) *Journal of Sound and Vibration*, 257 (1), pp. 63-88. Cited 60 times. IF at pub. Year: 0.829, Current IF: 2.168
7. Modal coupling in one-dimensional electromechanical structured continua. Vidoli, S., Dell'Isola, F. (2000) *Acta Mechanica*, 141 (1), pp. 37-50. Cited 49 times. IF at pub. Year: 0.339, Current IF: 2.113
8. Damping of bending waves in truss beams by electrical transmission lines with PZT actuators. Dell'Isola, F., Vidoli, S. (1998) *Archive of Applied Mechanics*, 68 (9), pp. 626-636. Cited 48 times. IF at pub. Year: 0.557, Current IF: 1.467
9. Gradient damage models coupled with plasticity: Variational formulation and main properties. Alessi, R., Marigo, J.-J., Vidoli, S. (2015) *Mechanics of Materials*, 80, pp. 351-367. Cited 47 times. IF at pub. Year: 2.636, Current IF: 2.697
10. Tristability of thin orthotropic shells with uniform initial curvature. Vidoli, S., Maurini, C. (2008) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 464 (2099), pp. 2949-2966. Cited 45 times. IF at pub. Year: 1.705, Current IF: 2.410
11. Derivation of plate and rod equations for a piezoelectric body from a mixed three-dimensional variational principle. Vidoli, S., Batra, R.C. (2000) *Journal of Elasticity*, 59 (1-3), pp. 23-50. Cited 42 times. IF at pub. Year: 0.521, Current IF: 1.650
12. Multiparameter actuation for shape control of bistable composite plates. Fernandes, A., Maurini, C., Vidoli, S. (2010) *International Journal of Solids and Structures*, 47 (10), pp. 1449-1458. Cited 34 times. IF at pub. Year: 1.677, Current IF: 2.566
13. Piezo-electromechanical (PEM) structures: Passive vibration control using distributed piezoelectric transducers. Dell'Isola, F., Porfiri, M., Vidoli, S. (2003) *Comptes Rendus - Mecanique*, 331 (1), pp. 69-76. Cited 31 times. IF at pub. Year: 0.209, Current IF: 1.127
14. Gradient Damage Models Coupled with Plasticity and Nucleation of Cohesive Cracks. Alessi, R., Marigo, J.-J., Vidoli, S. (2014) *Archive for Rational Mechanics and Analysis*, 214 (2), pp. 575-615. Cited 31 times. IF at pub. Year: 2.219, Current IF: 2.448
15. A comparison of nonlinear integral-based viscoelastic models through compression tests on filled rubber. Ciambella, J., Paolone, A., Vidoli, S. (2010) *Mechanics of Materials*, 42 (10), pp. 932-944. Cited 29 times. IF at pub. Year: 1.911, Current IF: 2.697
16. Distributed piezoelectric actuation of a bistable buckled beam. Maurini, C., Pouget, J., Vidoli, S. (2007) *European Journal of Mechanics, A/Solids*, 26 (5), pp. 837-853. Cited 29 times. IF at pub. Year: 1.049, Current IF: 2.881
17. Multimode vibration suppression with passive two-terminal distributed network incorporating piezoceramic transducers. Batra, R.C., Dell'Isola, F., Vidoli, S., Vigilante, D. (2005) *International Journal of Solids and Structures*, 42 (11-12), pp. 3115-3132. Cited 29 times. IF at pub. Year: 1.289, Current IF: 2.566

18. Tristability of an orthotropic doubly curved shell. Coburn, B.H., Pirrera, A., Weaver, P.M., Vidoli, S. (2013) *Composite Structures*, 96, pp. 446-454. Cited 28 times. IF at pub. Year: 3.120, Current IF: 4.101
19. Discrete approximations of the Föppl-Von Kármán shell model: From coarse to more refined models. Vidoli, S. (2013) *International Journal of Solids and Structures*, 50 (9), pp. 1241-1252. Cited 26 times. IF at pub. Year: 2.035, Current IF: 2.566
20. Veering phenomena in systems with gyroscopic coupling. Vidoli, S., Vestroni, F. (2005) *Journal of Applied Mechanics, Transactions ASME*, 72 (5), pp. 641-647. Cited 25 times. IF at pub. Year: 0.752, Current IF: 2.127
21. Asymptotic fracture modes in strain-gradient elasticity: Size effects and characteristic lengths for isotropic materials. Sciarra, G., Vidoli, S. (2013) *Journal of Elasticity*, 113 (1), pp. 27-53. Cited 16 times. IF at pub. Year: 1.043, Current IF: 1.650
22. A Second-Order Solution of Saint-Venant's Problem for a Piezoelectric Circular Bar Using Signorini's Perturbation Method. Batra, R.C., Dell'Isola, F., Vidoli, S. (1998) *Journal of Elasticity*, 52 (1), pp. 75-90. Cited 11 times. IF at pub. Year: 0.568, Current IF: 1.650
23. Basic criteria to design and produce multistable shells. Hamouche, W., Maurini, C., Vincenti, A., Vidoli, S. (2016) *Meccanica*, 51 (10), pp. 2305-2320. Cited 10 times. IF at pub. Year: 2.196, Current IF: 2.211
24. Damage observability, localization and assessment based on eigenfrequencies and eigenvectors curvatures. Ciambella, J., Vestroni, F., Vidoli, S. (2011) *Smart Structures and Systems*, 8 (2), pp. 191-204. Cited 9 times. IF at pub. Year: 1.231, Current IF: 2.231
25. Structural-damage detection by distributed piezoelectric transducers and tuned electric circuits. Dell'Isola, F., Vestroni, F., Vidoli, S. (2005) *Research in Nondestructive Evaluation*, 16 (3), pp. 101-118. Cited 8 times. IF at pub. Year: 0.333, Current IF: 1.567
26. Coupling damage and plasticity for a phase-field regularisation of brittle, cohesive and ductile fracture: One-dimensional examples. Alessi, R., Marigo, J.-J., Maurini, C., Vidoli, S. (2018) *International Journal of Mechanical Sciences*, 149, pp. 559-576. Cited 8 times. IF at pub. Year: 3.570, Current IF: 3.570
27. Eversion of bistable shells under magnetic actuation: A model of nonlinear shapes. Seffen, K.A., Vidoli, S. (2016) *Smart Materials and Structures*, 25 (6), art. no. 065010. Cited 8 times. IF at pub. Year: 2.909, Current IF: 2.963
28. A model for crystal plasticity based on micro-slip descriptors. Vidoli, S., Sciarra, G. (2002) *Continuum Mechanics and Thermodynamics*, 14 (5), pp. 425-435. Cited 7 times. IF at pub. Year: 0.638, Current IF: 2.311
29. Coupled extensional and torsional deformations of a piezoelectric cylinder. Vidoli, S., Batra, R.C. (2001) *Smart Materials and Structures*, 10 (2), pp. 300-304. Cited 7 times. IF at pub. Year: 1.199, Current IF: 2.963
30. A class of morphing shell structures satisfying clamped boundary conditions. Brunetti, M., Vincenti, A., Vidoli, S. (2016) *International Journal of Solids and Structures*, 82, pp. 47-55. Cited 6 times. IF at pub. Year: 2.760, Current IF: 2.566
31. The role of edge forces in conservation laws and energy release rates of strain-gradient solids. Sciarra, G., Vidoli, S. (2012) *Mathematics and Mechanics of Solids*, 17 (3), pp. 266-278. Cited 6 times. IF at pub. Year: 0.814, Current IF: 2.545
32. Memory decay rates of viscoelastic solids: Not too slow, but not too fast either. Ciambella, J., Paolone, A., Vidoli, S. (2011) *Rheologica Acta*, 50 (7-8), pp. 661-674. Cited 6 times. IF at pub. Year: 2.027, Current IF: 1.833
33. Saint-Venant's problem for a second-order piezoelectric prismatic bar. Vidoli, S., Batra, R.C., Dell'Isola, F. (2000) *International Journal of Engineering Science*, 38 (1), pp. 21-45. Cited 5 times. IF at pub. Year: 0.597, Current IF: 7.023
34. A phenomenological approach to fatigue with a variational phase-field model: The one-dimensional case. Alessi, R., Vidoli, S., De Lorenzis, L. (2018) *Engineering Fracture Mechanics*, 190, pp. 53-73. Cited 5 times. IF at pub. Year: 2.580, Current IF: 2.580
35. Multi-parameter actuation of a neutrally stable shell: A flexible gear-less motor. Hamouche, W., Maurini, C., Vidoli, S., Vincenti, A. (2017) *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 473 (2204), art. no. 20170364. Cited 4 times. IF at pub. Year: 2.41, Current IF: 2.410

36. Torsion in multi-cell thin-walled girders. Paolone, A., Ruta, G., Vidoli, S. (2009) *Acta Mechanica*, 206 (3-4), pp. 163-171. Cited 4 times. IF at pub. Year: 1.137, Current IF: 2.113
37. Closed-form solutions for the structural response to train loads. Vestroni, F., Vidoli, S. (2007) *Journal of Sound and Vibration*, 303 (3-5), pp. 691-706. Cited 4 times. IF at pub. Year: 1.024, Current IF: 2.618
38. Comparison of phase-field models of fracture coupled with plasticity. Alessi, R., Ambati, M., Gerasimov, T., Vidoli, S., De Lorenzis, L. (2018) *Computational Methods in Applied Sciences*, 46, pp. 1-21. Cited 4 times. Book Chapter SNIP 0.342
39. Identification of the viscoelastic properties of soft materials at low frequency: Performance, ill-conditioning and extrapolation capabilities of fractional and exponential models. Ciambella, J., Paolone, A., Vidoli, S. (2014) *Journal of the Mechanical Behavior of Biomedical Materials*, 37, pp. 286-298. Cited 2 times. IF at pub. year: 3.417, Current IF: 3.239
40. Bistability of orthotropic shells with clamped boundary conditions: An analysis by the polar method. Brunetti, M., Vidoli, S., Vincenti, A. (2018) *Composite Structures*, 194, pp. 388-397. Cited 1 time. IF at pub. year: 4.101, Current IF: 4.101
41. Strain-gradient vs damage-gradient regularizations of softening damage models. Le, D.T., Marigo, J.-J., Maurini, C., Vidoli, S. (2018) *Computer Methods in Applied Mechanics and Engineering*, 340, pp. 424-450. Not cited yet. IF at pub. year: 4.441, Current IF: 4.441
42. Incremental finite element procedure for cumulative damage of two-dimensional continua via two-surface plasticity. Andreaus, U., Vidoli, S. (1999) *Computer Modeling and Simulation in Engineering*, 4 (2), pp. 143-149. Cited 1 time. Journal IF: SJR (2002) 0.128

Part XII – Seminars and participations to National and International Conferences

Invited seminars

| Year | Description |
|---------|---|
| 12/2005 | Distributed transducers networks for structural control and identification, Laboratoire d'Etudes Mécaniques des Assemblages, Université de Versailles/Saint-Quentin-en-Yvelines, invited by Prof. J. Pouget |
| 12/2008 | Multistable behaviour of shallow shells for shape control applications, Dept. of Engineering, Cambridge University, UK, December, invited by Prof. K.A. Seffen |
| 9/2010 | Modelling and control of multistable plates and shells, Séminaire d'Alembert, Institut Jean Le Rond d'Alembert, Univ. Pierre et Marie Curie, Paris |
| 6/2011 | Mathematical modelling and control of morphing shells, Advanced Composites Centre for Innovation and Science, University of Bristol, invited by Prof. P. Weaver |
| 7/2011 | Some recent developments in strain-gradient elasticity and their applications to fracture mechanics, Dipartimento di Meccanica Strutturale, Università di Pavia, invited by A. Reali |
| 10/2012 | From Uniform-Curvature to more refined models of multistable shallow shells, Advanced Composites Centre for Innovation and Science, University of Bristol, invited by Prof. P. Weaver |
| 1/2013 | Nonlinear reduced models of thin shallow shells, Institut P', Ecole nationale supérieure de Mécanique et d'aérotechnique Poitiers, France, invited by Prof. Marco Gigliotti |

Contributions/Participations (marked by *) to International Conferences

1. S. Vidoli*, F. dell'Isola: Distributed control of beams by electric transmission lines with PZT actuators, SPIE Proceedings vol. 3241-52, Smart Materials and Structures, Adelaide, Australia, 1997.

2. S. Vidoli*, F. Vestroni: Coupled dynamics of some electro-mechanical systems, Eight Conference Non-linear Vibrations, Stability and Dynamics of Structures, Blacksburg, Virginia, USA, 2000.
3. R.C. Batra*, S. Vidoli: Cylindrical bending of a piezoelectric plate with a higher order shear and normal deformable plate theory, SPIE Proceedings vol. 4326, 131-142, Smart Materials and Structures, San Diego, USA, 2001.
4. S. Vidoli*, F. Vestroni: Linear and nonlinear dynamical coupling of a class of electro-mechanical systems, ASME Proceedings DECT01- VIB21620, 18th Biennial ASME Conference on Mechanical Vibration and Noise, Pittsburg, USA, 9-12 September 2001.
5. S. Vidoli*, F. Vestroni: A perturbation approach to veering phenomena, Atti XV Congresso Aimeta, Taormina, 2001.
6. S. Vidoli*, G. Sciarra: An alternative model for crystal plasticity, Plasticity, damage and fracture at macro, micro and nano scales, 281-283, Plasticity '02, Aruba 2002.
7. S. Vidoli*, F. Vestroni, R.C. Batra: Vibration analysis of higher order plate theories, 14 th US National Conference on Theoretical and Applied Mechanics, Blacksburg, USA, 2002.
8. F. Vestroni*, M.N. Cerri, F. dell'Isola, S. Vidoli: Structural health monitoring based on dynamic measurements: a standard and a novel approach, Proceedings of the 2nd Int. Conference on Structural and Construction Engineering. Bontempi Ed., A.A. Balkema Publishers. Roma. September, 2003.
9. S. Vidoli*, F. Vestroni, F. dell'Isola: Structural damage identification through auxiliary electric systems, Proceedings 16th AIMETA Congress of Theoretical and Applied Mechanics, Ferrara, September 2003.
10. F. Vestroni*, M.N. Cerri, S. Vidoli, F. dell'Isola: Structural health monitoring based on measurements of dynamic response. Third Eur. Conf. on Structural Control. Vienna. July, 2004.
11. F. dell'Isola, S. Vidoli, F. Vestroni*: Damage detection in net-controlled piezo structures, ISEM 2003 Conference, Versailles, France.
12. F. Vestroni*, S. Vidoli: Exact and semianalytical solutions for train loads as travelling sequences of impulses, 2nd WORKSHOP Problemi di Vibrazioni nelle strutture civili e nelle Costruzioni meccaniche, Perugia, Giugno 2004.
13. F. dell'Isola*, C. Maurini, M. Porfiri, S. Vidoli: Multi-modal passive electric control of mechanical vibrations through distributed piezoelectric transducers and electric networks: results and perspectives, 17th AIMETA Congress of Theoretical and Applied Mechanics, Sept. 2005.
14. V. Sepe*, F. Vestroni, S. Vidoli, R. Mele, M. Tisalvi: Train-induced vibrations of masonry railway bridges, EURO DYN Conference Paris, September 2005.
15. M. N. Cerri, F. Vestroni*, S. Vidoli: Health monitoring of beam structures based on finite elements models and eigenfrequency tests, ICSV12, 12 Int. Conf. on Sound and Vibration, Lisbona, July 2005.
16. F. Romeo*, A. Paolone and S. Vidoli Transfer matrices in two-dimensional periodic structures, COMP-DYN 2007 Conference, Crete, Greece, June 2007.
17. F. Vestroni*, S. Vidoli, J. Ciambella, F. Dell'Isola Damage detection with auxiliary subsystems, CIMTEC 2008 3rd International Conference on Smart Materials, Structures and Systems, Catania, Italy, July 2008
18. C. Maurini, J. Pouget*, S. Vidoli Bistable Buckled Beam: Modelling and Piezoelectric Actuation, CIMTEC 2008 3rd International Conference on Smart Materials, Structures and Systems, Catania, Italy, July 2008
19. A. Fernandes*, C. Maurini, S. Vidoli: Actionnement multiparametrique de plaques bistables, 9-eme Conference Nationale en Calcul des structures, France, Giens 2009.
20. C. Maurini*, A. Fernandes, S. Vidoli, A. Vincenti: Plaques et coques orthotropes multistables: conception et applications au controle de forme, 12-eme Rencontre du non lineaire, Institut Henri Poincaré, Paris, March 2009
21. S. Vidoli*, C. Maurini, A. Fernandes: Multiparametric actuation of bistable plates: a method to avoid snap-through instabilities, 7-th Euromech Solid Mech. Conf., Lisbon, Sept 7-11, 2009
22. S. Vidoli*, C. Maurini, A. Fernandes: Multiparametric actuation of bistable plates, Atti XIX Congresso AIMETA, Ancona, Italia, 14-17 Settembre 2009
23. J. Ciambella*, A. Paolone, S. Vidoli: A comparison of nonlinear viscoelastic models for filled-rubber: analytical formulation, experimental modeling and identification, Atti XIX Congresso AIMETA, Ancona, Italia, 14-17 Settembre 2009
24. C. Maurini, S. Vidoli, A. Vincenti*: Modelling and design of anisotropic multistable shells, ECCM 2010, IV European Conference on Computational Mechanics, Paris, France, May 16-21, 2010

25. J. Ciambella, F. Vestroni*, S. Vidoli: A Combined Eigenfrequencies-Eigenvectors Curvatures Technique for Damage Detection, EWSHM2010 European Workshop on Structural Health Monitoring, Sorrento June 2010
26. S. Vidoli*, F. dell'Isola, G. Sciarra: Second gradient materials: objective stored energy functions and generalised Hooke's law, Workshop del Gruppo Materiali AIMETA, Palermo 25-26 Febbraio 2010.
27. C. Maurini, A. Vincenti*, S. Vidoli, V. Papetti: Multistabilité de coques orthotropes : modèles réduits à courbure uniforme et validation numérique aux éléments finis, CSMA 2011, 10eme Colloque National en calcul des structures, May 2011 Giens, France
28. J. Ciambella*, A. Paolone, S. Vidoli: Viscoelastic behavior of soft materials at low frequency: theoretical characterization and constitutive modelling, AERC 2011, 7th Annual European Rheology Conference, May 2011, Suzdal, Russia
29. J. Ciambella*, A. Paolone, S. Vidoli: Characterization and identification of the memory decay rates of carbon black-filled rubber, ECCMR 2011, Seventh European Conference on Constitutive Models for Rubber, September 2011, Dublin, Ireland.
30. S. Vidoli*: Reduced models of Föppl - von Kármán shells, ESMC 2012, 8th European Solid Mechanics Conference, July 2012, Graz, Austria.
31. J. Ciambella*, A. Paolone, S. Vidoli: Identification of mechanical properties of liver tissue by means of fractional models, ESMC 2012, 8th European Solid Mechanics Conference, July 2012, Graz, Austria.
32. R. Alessi*, J.J. Marigo, S. Vidoli: Variational approach to ductile fracture: a simple model With gradient-damage and plasticity, EUROMECH - Colloquium 548, Direct and variational methods for non-smooth problems in mechanics, Amboise, France 24-26 June 2013.
33. S. Vidoli*: From Uniform-Curvature to more refined models of multistable shells, ICCS17, 17th International Conference on Composite Structures, Porto, Portugal, June 2013
34. J. Ciambella*, A. Paolone, D. Stanier, S. Vidoli: Microstructure evolution in short fibre reinforced elastomers, XXI Congresso AIMETA, Settembre 2013, Torino, Italia.
35. F. Auricchio, M. Pingaro, A. Reali, G. Sciarra, P. Venini, S. Vidoli: Isogeometric analysis for anti-plane fracture problems, II ECCOMAS Young Investigators Conference 2013, Bordeaux, France
36. D.T. Le, C. Maurini, J.J. Marigo, S. Vidoli: Strain-gradient vs. damage-gradient regularizations of damage models. CFRAC, Fourth International Conference on Computational Modeling of Fracture and Failure of Materials and Structures, Paris, France, 3-5 June 2015
37. W. Hamouche, A. Vincenti, S. Vidoli, C. Maurini: Controle de forme de coques multistables CSMA 2015, 12eme Colloque National en calcul des structures, May 2015 Giens, France
38. D.T. Le, C. Maurini, J.J. Marigo, S. Vidoli*: Regularizations of damage models by strain-gradient and damage- gradient approaches: a comparison, XXII AIMETA, Sept. 2015, Genova, Italy
39. M. Brunetti*, A. Vincenti, S. Vidoli: Clamped morphing shells: multistability by the polar method, 13-ème Colloque National en Calcul des Structures 15-19 May 2017, Giens, France
40. M. Brunetti*, G. Sciarra, S. Vidoli: A mixed finite element formulation for general strain-gradient isotropic materials, CFRAC'2017, 14-16 June, Nantes, France
41. R. Alessi, M. Ambati, L. De Lorenzis, S. Vidoli: A novel variational phase-field model for the description of fatigue phenomena, CFRAC'2017, 14-16 June, Nantes, France
42. M. Brunetti*, G. Sciarra, S. Vidoli: Strain-Gradient Isotropic Materials: a Mixed Finite Element Formulation, XXIII Congresso AIMETA, Sept. 2017, Salerno, Italy
43. M. Ambati*, P. Carrara, R. Alessi, S. Vidoli, L. De Lorenzis: A phase-field model for the description of fatigue phenomena, GAMM'2018, 89th Annual Meeting International Association of Applied Mathematics and Mechanics, 19-23 March, Munich, Germany

Part XII – Third mission

Patents

| Year | Title |
|------|--|
| 2003 | International Patent US 6546316. Two dimensional network of actuators for the control of damping vibrations. Co-inventors: E. Henneke, F. dell'Isola |

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| 2018 | Patent Application (Domanda di brevetto) N. 102018000006527: Metodo per la realizzazione di gusci prestressati a bistabilità controllata. Co-inventor: Matteo Brunetti. Commercial rights transferred to La Sapienza |
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Research agreements with public/private enterprises

| Year | Description |
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| 2004 | Research Agreement (Convenzione di ricerca) between Dipartimento di Ingegneria Strutturale e Geotecnica and Rete Ferroviaria Italiana Title: “Studio del monitoraggio di ponti ferroviari ad arco in muratura sulla linea Roma-Sulmona” PI: Prof. F. Vestroni |
| 2007/08 | Research Agreement (Convenzione di ricerca) between Dipartimento di Ingegneria Strutturale e Geotecnica Roma La Sapienza) and the Bridgestone Technical Research Center Rome Title: “Analisi teorica ed identificazione sperimentale di legami iperelastici e viscoelastici per mescole polimeriche”. PI: Prof. A. Paolone |
| 2015/... | Research collaboration with Aviorec for the production of multistable shells and bimorph ailerons. Aviorec is a company based in Anagni specialized in the production of composite panels for aeronautical and automotive applications. |

Professional appointments

| Year | Description |
|------|--|
| 1997 | Pacchetti software per l’analisi del danneggiamento in pannelli murari soggetti ad azioni cicliche. Issued by: Prof. G. Augusti, Dip. Ing. Strutturale e Geotecnica, Università di Roma “La Sapienza” |
| 1997 | Pacchetti software per l’analisi di strutture reticolari e relativi manuali d’uso. Issued by: Prof. A. Di Carlo, Dip. Scienze Ing. Civile, Università Roma Tre |
| 2000 | Pacchetti software per l’analisi di propagazione ondosa in continui microstrutturati mono e bidimensionali. Issued by: Prof. Fabrizio Vestroni, Dip. Ing. Strutturale e Geotecnica, Università di Roma “La Sapienza” |
| 2001 | Pacchetti software per l’analisi della risposta sismica di uno sfioratore. Issued by: Prof. G. Calabresi, Dip. Ing. Strutturale e Geotecnica, Università di Roma “La Sapienza |