# ABRIDGED CURRICULUM VITAE OF EGIDIO RIZZI

(July 2024)

# PERSONAL DATA

Egidio RIZZI Born in Como (Italy) Italian Citizen



#### **ADDRESS**

prof. Egidio Rizzi Mechanics of Solids and Structures Università degli studi di Bergamo, Scuola di Ingegneria (Dalmine) Dipartimento di Ingegneria e Scienze Applicate viale G. Marconi 5 I-24044 DALMINE (BG), ITALY

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## **DEGREES**

- High School Diploma, Technical School, Building Specialty, ITIS "Magistri Cumacini", Como, June 1983.
- Degree in Civil Engineering ("Laurea"), Structural Address, Politecnico di Milano, April 10, 1990. Final grade: 100/100 "cum laude". Laurea Thesis: "Simulazione del comportamento viscoplastico di acciai ad alte temperature sotto carichi ciclici: modelli costitutivi e calcolo per elementi finiti" ("Simulation of viscoplastic behaviour of steel components at high temperature under cyclic load: constitutive models and finite element computations"), Advisor: G. Maier; Co-Advisors: J. Donea and V. Renda (JRC, Ispra).
- State Exam ("Esame di Stato") for the habilitation to exercise the Engineering Profession, Politecnico di Milano, II Session 1990.
- Master of Science in Civil Engineering, University of Colorado at Boulder, U.S.A., May 14, 1993. Grade Point Average: GPA = 4.0 over 4.0. Master Thesis: "Localization analysis of damaged materials", Advisor: K. Willam.
- Doctoral Degree in Structural Engineering ("Dottorato di Ricerca in Ingegneria delle Strutture"), Politecnico di Milano, Dept. of Structural Engineering, February 28, 1995. Doctoral Thesis: "Sulla localizzazione delle deformazioni in materiali e strutture" ("On strain localization in materials and structures"), Advisors: G. Maier and K. Willam; defended in Rome on January 17, 1996 in front of the National Committee, which deliberated to formally confer the degree.

# PROFESSIONAL AND RESEARCH EXPERIENCES

- o (06/1989 05/1990) One-year stage at the Applied Mechanics Division of the Joint Research Centre (JRC), Commission of the European Communities, Ispra Establishment, Ispra (VA), Italy, c/o Dr. J. Donea and Eng. V. Renda, working on topics related to the Laurea Thesis.
- o (06/1990 10/1991) Professional activity as consultant Civil Engineer in Como, Italy.
- o (11/1991 02/1995) Doctoral Student in Structural Engineering, Dept. of Structural Engineering, Politecnico di Milano, Tutor: Prof. G. Maier.

- (01/1992 02/1993, 08/1993 12/1993, 08/1994 09/1994) Research Assistant at the University of Colorado at Boulder, Dept. of Civil, Environmental and Architectural Engineering, Boulder, Colorado, U.S.A., c/o Prof. K. Willam.
- o (06/1995 12/1995) Post-Doctoral fellow HCM (Human Capital and Mobility) at the Institut de Mécanique de Grenoble, Laboratoire Sols, Solides, Structures, Grenoble, France, c/o Prof. B. Loret.
- (12/1995 10/1998) Appointed as **Assistant Professor** ("Ricercatore") of Mechanics of Solids and Structures ("Scienza delle Costruzioni") at **Politecnico di Milano**, **Faculty of Engineering (Milano Leonardo)**, Dept. of Structural Engineering.
- (1996) Selected in Brussels (open competition by titles and live interview) by the Commission of the European Communities for the reserve list of scientific agents of the Communities.
- (11/1998 10/2001) Appointed as Associate Professor of Mechanics of Solids and Structures ("Scienza delle Costruzioni") at Politecnico di Bari, Faculty of Engineering at Taranto, Dept. of Civil and Environmental Engineering.
- (08/1999 01/2000) Visiting Fellow TMR (Training and Mobility of Researchers) at the Technische Universität Braunschweig, Institut für Metallphysik und Nukleare Festkörperphysik, Braunschweig, Germany, c/o Dr. P. Hähner and Prof. H. Neuhäuser.
- (10/2000 12/2000) Visiting Professor at the Technical University of Catalunya (UPC), School of Civil Engineering (ETSECCPB), Dept. of Geotechnical Engineering and Geo-Sciences, Barcelona, Spain, c/o Prof. I. Carol.
- (11/2001 09/2006) Appointed as Associate Professor (tenure-track position) of Mechanics of Solids and Structures ("Scienza delle Costruzioni") at the University of Bergamo, Faculty of Engineering (Dalmine), Dept. of Design and Technologies.
- (08/2005) Habilitation to cover the role of Full Professor of Mechanics of Solids and Structures ("Scienza delle Costruzioni"); national competition for two openings held at the University of Sassari, Faculty of Architecture, ended August 5, 2005.
- (10/2006 09/2009) Appointed as Full Professor of Mechanics of Solids and Structures ("Scienza delle Costruzioni") at the University of Bergamo, Faculty of Engineering (Dalmine),
   Dept. of Design and Technologies (call by the Faculty of Engineering July 19, 2006; position started October 1st, 2006).
- (10/2009 present) Appointed as Full Professor (tenure-track position) of Mechanics of Solids and Structures ("Scienza delle Costruzioni") at the University of Bergamo, School of Engineering (Dalmine), Dept. of Engineering and Applied Sciences (position started October 1st, 2009).

## **MISCELLANEA**

- $\nabla$  Short stays at international research institutions:
  - ⋄ Technical University of Catalunya, Dept. of Geotechnical Engineering and Geo-Sciences, Barcelona, Spain, c/o Prof. I. Carol: April 29-May 2, 1993; June 4-11, 1998; July 3-13, 1999; September 17-22, 2001; May 8-17, 2003; August 23-29 and September 11-13, 2004; June 27-July 2, July 11-16 and July 26-August 7, 2005; July 31-August 14, August 27-September 2 and December 8-12, 2006; August 5-15, August 26-September 5 2007.
  - ♦ Aristotle University of Thessaloniki, Laboratory of Mechanics and Materials, Thessaloniki, Greece, c/o Prof. E. Aifantis: September 8-12, 1995.
  - ♦ Institut de Mécanique de Grenoble, Laboratoire Sols, Solides, Structures, Grenoble, France, c/o Prof. B. Loret: August 20-31, 1996; August 18-27 and September 1-7, 1997; January 2-24, 1999; September 24-26, 2006.
  - Technical University of Budapest, Department of Civil Engineering Mechanics, Budapest, Hungary, c/o Prof. S. Kaliszky: May 28-June 1, 1998.

- Technical University of Lisbon, Instituto Superior Técnico, Department of Civil Engineering, Lisboa, Portugal, c/o Prof. J. Martins and Prof. F. Simões: July 9-15, 2002.
- ⋄ Technische Universität Braunschweig, Institut für Metallphysik und Nukleare Festkörperphysik, Braunschweig, Germany, c/o Prof. H. Neuhäuser: March 3-5, 2004.
- ¬ Mother Language: Italian. Spoken Dialect: Brianzolo. Interested in foreign languages. Acquired some knowledge, also connected to the various stages abroad, in reading, oral and written form, of the following Foreign Languages (in chronological learning order): English, French, German, Spanish, Catalan, Portuguese and Romanian (these last two ones just in passive phase; did not really experience speaking and writing). Then, got stuck with Modern Greek and Russian.
- Since around 2003, developed a personal and scientific interest in *Ocular Biomechanics*, as connected to the natural methods for eye-sight improvement. Author of *Vision Charts* for training by fusion under convergence or divergence, published at <a href="http://www.i-see.org/eyecharts.html">http://www.i-see.org/eyecharts.html</a> and available for direct pdf downloading format at <a href="http://www.i-see.org/rizzi\_charts.pdf">http://www.i-see.org/rizzi\_charts.pdf</a> (2007) and <a href="http://www.i-see.org/rizzi\_charts\_readvertical.pdf">http://www.i-see.org/rizzi\_charts\_readvertical.pdf</a> (2017).

#### ∇ Contributor to the following International Journals:

- Acta Materialia (Elsevier, The Netherlands);
- Acta Mechanica (Springer, Switzerland);
- Advanced Materials Research (Trans Tech Publications, Switzerland);
- Applied Mechanics Reviews (ASME, USA);
- Archive of Applied Mechanics (Springer, Switzerland);
- Archives of Civil and Mechanical Engineering (Elsevier, Politechnika Wrocławska, Poland);
- Archives of Computational Methods in Engineering (Springer, Switzerland);
- Archives of Mechanics (Polish Academy of Sciences, Poland);
- Bulletin of Earthquake Engineering (Springer, Switzerland);
- Composites Science and Technology (Elsevier, The Netherlands);
- Computational Materials Science (Elsevier, The Netherlands);
- Computational Mechanics (Springer, Switzerland);
- Computers and Structures (Elsevier, The Netherlands);
- Earthquake Engineering and Engineering Vibration (Springer, Institute of Engineering Mechanics IEM, China);
- Earthquake Engineering and Structural Dynamics (Wiley, USA);
- Engineering Structures (Elsevier, The Netherlands);
- European Journal of Mechanics A/Solids (Elsevier, The Netherlands);
- Frattura ed Integrità Strutturale Fracture and Structural Integrity (Italian Group of Fracture, Italy);
- Infrastructures (MDPI, Switzerland);
- International Journal of Architectural Heritage (Taylor and Francis, USA);
- International Journal of Computational Methods (World Scientific Publishing Company, China);
- International Journal of Engineering Science (Elsevier, The Netherlands);
- International Journal of Masonry Research and Innovation (Inderscience, Switzerland);
- International Journal of Mechanical Sciences (Elsevier, The Netherlands);
- International Journal of Plasticity (Elsevier, The Netherlands);
- International Journal of Solids and Structures (Elsevier, The Netherlands);
- Journal of Civil Structural Health Monitoring (Springer, Switzerland);
- Journal of Elasticity (Kluwer, The Netherlands);
- Journal of Engineering Mechanics (ASCE, USA);
- Journal of Optimization Theory and Applications (Springer, Switzerland);
- Journal of the Mechanics and Physics of Solids (Elsevier, The Netherlands);
- Journal of Vibration and Acoustics (ASME, USA);
- Journal of Vibration and Control (SAGE, USA);
- Materials Science and Engineering: A (Elsevier, The Netherlands);
- Measurement Science and Technology (Institute of Physics IOP, UK);
- Meccanica (Springer, Switzerland);

- Mechanical Systems and Signal Processing (Elsevier, The Netherlands);
- Metallurgia Italiana International Journal of the Italian Association for Metallurgy (Associazione Italiana di Metallurgia, Italy);
- Modelling and Simulation in Materials Science and Engineering (Institute of Physics IOP, UK):
- Physical Review B (The American Physical Society, USA);
- Procedia Engineering (Elsevier, The Netherlands);
- Smart Materials and Structures (Institute of Physics IOP, UK);
- Smart Structures and Systems (Techno-Press, Korea);
- Soil Dynamics and Earthquake Engineering (Elsevier, The Netherlands);
- Structural Control and Health Monitoring (Wiley, USA);
- Structural Engineering and Mechanics (Techno-Press, Korea);
- Structures (Elsevier, The Netherlands);
- Wear (Elsevier, The Netherlands);
- Wiadomości Konserwatorskie Journal of Heritage Conservation (Stowarzyszenie Konserwatorów Zabytków Association of Monument Conservators, Poland).

## ∇ **Reviewer** for the following scientific journals:

Acta Mechanica, Advances in Materials Science and Engineering, Advances in Mechanical Engineering, Advanced Engineering Materials, Applied Ocean Research, Archive of Applied Mechanics, ASCE J. of Materials in Civil Engineering, Asian J. of Control, Bulletin of Earthquake Engineering, Computational Materials Science, Computer Methods in Applied Mechanics and Engineering, Computers and Structures, Cryogenics, Developments in the Built Environment, Earthquake Engineering and Engineering Vibration, Earthquakes and Structures, Engineering Failure Analysis, Engineering Structures, European J. of Environmental and Civil Engineering, European J. of Finite Elements, European J. of Mechanics A/Solids, Frontiers of Structural and Civil Engineering, Geosciences, Indian J. of Engineering & Materials Sciences, Int. J. for Numerical and Analytical Methods in Geomechanics, Int. J. for Numerical Methods in Engineering, Int. J. of Architectural Heritage, Int. J. of Computer Applications in Technology, Int. J. of Masonry Research and Innovation, Int. J. of Material Forming, Int. J. of Pavement Research and Technology, Int. J. of Plasticity, Int. J. of Solids and Structures, Iranian J. of Science and Technology, Transactions of Civil Engineering, J. of Applied Mathematics and Computational Mechanics, J. of Constructional Steel Research, J. of Computational Methods in Sciences and Engineering, J. of Computational Science, J. of Engineering Mechanics (ASCE), J. of Earthquake Engineering, J. of Low Frequency Noise, Vibration and Active Control, J. of Manufacturing and Materials Processing, J. of Physics: Conference Series (IOP), J. of Physics D: Applied Physics, J. of Sound and Vibration, J. of the Mechanics and Physics of Solids, J. of Vibration and Acoustics (ASME), J. of Vibration and Control, J. of Zhejiang University-SCIENCE A (JZUS-A) -Applied Physics & Engineering, Materials, Materials and Structures, Mathematical Biosciences and Engineering, Measurement, Meccanica, Mechanics Based Design of Structures and Machines, Mechanics of Advanced Materials and Structures, Mechanics of Materials, Mechanics Research Communications, Mechanical Systems and Signal Processing, Mechanics Based Design of Structures and Machines: An International Journal, Modelling and Simulation in Materials Science and Engineering, Nonlinear Dynamics, Open Construction and Building Technology Journal, Petroleum Science, Procedia Engineering, Proceedings of the Royal Society A, Processes, Scientia Iranica, Simulation Modelling Practice and Theory, Smart Materials and Structures, Soil Dynamics and Earthquake Engineering, Steel Research International, Structural and Multidisciplinary Optimization, Structural Engineering and Mechanics, Structure and Infrastructure Engineering, Structures, The Open Construction & Building Technology Journal, Transportation Geotechnics.

- Reviewer of Book, Volume or Chapter for the following International Publishers: Engineering and Environmental Sciences, CRC Press, Taylor & Francis Group; IGI Global.
- Advisor of 35 Laurea Theses and 7 Doctoral Dissertations.
- □ Italian project leader of an Italy-Spain research exchange program between UniBG and UPC Barcelona (2005-2007).
- → Member of the Scientific Committee of XXII Congresso AIMETA (Associazione Italiana di Meccanica Teorica e Applicata), Genova, 14-17 Settembre 2015.

- - in Engineering of Civil and Mechanical Structural Systems, University of Trento/University of Bergamo, 2006/2007-2012/2013.
  - in Engineering and Applied Sciences, University of Bergamo, 2013/2014-2023/2024.
  - in Sustainable Technologies for Industrial and Construction Engineering, University of Bergamo, 2024/2025-present.
- $\nabla$  As referent for the University of Bergamo:
  - Local referent of Socrates/Erasmus programs with UPC Barcelona, Spain and University of Lisbon, Portugal, since 2003/2004; with TUCN Cluj Napoca, Romania, since 2017/2018; Erasmus referent for the civil engineering scientific-disciplinary sectors (ICAR/06-08-09).
  - Referent of "Istituto Lombardo di Scienze e Lettere", Milano, since 2006;
  - Member of the Scientific Committee of "Centro Volta Landau Network", Como, since 2007.
  - Scientific referent for Frame Agreement with UniBG: RFI (Rete Ferroviaria Italiana), September 2017; TUCN (Technical University of Cluj Napoca, Romania), July 2018; CQU (University of Chongqing, China), July 2019.
- □ Institutional duties at the University of Bergamo:
  - For the Board of Laurea Courses in Building Engineering:
    - Responsible for incoming student orienting activities, 2008/2009-2012/2013;
    - President of the committee for the Student Plan of Studies, 2012/2013-2013/2014; then, since 01/10/2018;
    - President of the Board of Laurea Courses (Bachelor + Master) in Building Engineering, 2018/2021 (since 01/10/2018); then 2021/2024 (since 01/10/2021).
  - For the School of Engineering:
  - Member of the Permanent Committee of the Engineering School, October 2014/December 2015;
  - Member of the Board as President of the Board of Laurea Courses in Building Engineering, since October 2018.
  - Vice-Director of the Department of Engineering and Applied Sciences, for the three-year academic period October 2015/September 2018; member of Dept. Board; referent of Research.

## **TEACHING**

- ▶ Teaching Assistant of institutional courses of "Mechanics of Solids and Structures" ("Scienza delle Costruzioni") and "Mechanics of Materials and Fracture Mechanics" ("Meccanica dei Materiali e della Frattura") offered at Politecnico di Milano, Faculty of Engineering, to students in Aerospace, Civil, Electronic, Materials and Mechanical Engineering, in the academic years 1995/96, 1996/97, 1997/98.
- ▷ One of the Lecturers of the Permanent Education Program at Politecnico di Milano, course on: "Computational Methods in Structural Engineering: Inelasticity, Damage, Fracture and Failure Analyses" ("Metodi di Calcolo dell'Ingegneria Strutturale: Analisi Anelastiche, a Danneggiamento, Frattura e Collasso"), Dept. of Structural Engineering, October 6-9, 1998.
- ▶ Teacher of the Course "Mechanics of Solids and Structures" ("Scienza delle Costruzioni") offered at Politecnico di Bari, Faculty of Engineering at Taranto, to students in Environmental Engineering, 1998/1999, 1999/2000, 2000/2001.
- ▶ Teacher of the Mini-Course (Doctoral Course) "On the constitutive formulations of anisotropic elastic damage: Part I: Secant laws and damage-effect tensors. Part II: Dual orthotropic damage-effect tensors with complementary structures" taught at the Dept. of Geotechnical Engineering and Geo-Sciences, Technical University of Catalunya (UPC), Barcelona, Spain, September 17–22, 2001, within a "Teaching Staff" visit of the Socrates/Erasmus program between UPC and Politecnico di Bari.
- ▷ One of the Lecturers of the Continuing Education Course: "From Design to Finite Element Modeling of Structural Components" ("Dal disegno alla modellazione agli elementi finiti di componenti strutturali"), Università degli studi di Bergamo, Facoltà di Ingegneria, Dalmine (June 20-21, 2002; June 18-20, 2003; June 30-July 2, 2004).

- ➤ Teacher of institutional courses offered at the University of Bergamo, School of Engineering (Dalmine), to students in Building Engineering, Mechanical Engineering, Management Engineering, from 2001/2002 to present:
  - "Mechanics of Solids and Structures" ("Scienza delle Costruzioni");
  - "Complements of Mechanics of Solids and Structures" ("Complementi di Scienza delle Costruzioni");
  - "Dynamics, Instability and Anelasticity of Structures" ("Dinamica, Instabilità e Anelasticità delle Strutture"), with English-taught course for the years 2011/2012-2016/2017.

Referent for the area Mechanics of Solids and Structures ("Scienza delle Costruzioni") of teaching activities at the University of Bergamo, School of Engineering (Dalmine), from 2001/2002 to present, including:

- "Tutoring of Mechanics of Solids and Structures" ("Tutoring di Scienza delle Costruzioni");
- "Elearning of Mechanics of Solids and Structures" ("Elearning di Scienza delle Costruzioni");
- "Mechanics of Solids and Structures" ("Scienza delle Costruzioni"), Mechanical Engineering;
- "Statics and Fundamentals of Mechanics of Solids and Structures" ("Statica e Fondamenti di Scienza delle Costruzioni");
- "Computational Mechanics of Solids and Structures" ("Meccanica Computazionale dei Solidi e delle Strutture"), with English-taught course since 2019/2020 (with R. Ferrari, since 2018/2019);
- "Structural Monitoring") (with R. Ferrari, since 2020/2021).

## **RESEARCH**

Past and present research activities have been performed independently or as part of Academic and Industrial International Research Programs in the area of Mechanics of Materials and Structures. Core original contributions have been along the following consolidated three main guidelines:

- Constitutive modeling of quasi-brittle materials: plasticity, elastic degradation and damage, multi-dissipation (e.g. multi-surface plasticity and elastoplastic coupling), multi-phase media (e.g. fully and partially fluid-saturated porous and fissured media), anisotropic elastic and inelastic behavior, orthotropic damage, composites (e.g. syntactic foams).
- Material instability phenomena: localization of inelastic strains and dissipation processes into narrow bands. Strain-softening localization: numerical and analytical derivations of strain localization characteristics. Strain-rate-softening localization (Portevin—Le Chatelier effect): theoretical and numerical modeling.
- Structural instability: computational techniques for the regularization of numerical responses of damaged materials (removal of mesh dependence induced by the appearance of strain localization) through fracture-energy-based regularization, non-local and second-order gradient damage, mixed load/displacement control ('arc-length') and special finite elements (e.g. with incompatible modes).

Further recent research themes developed also in the framework of Laurea and Doctoral Theses carried out at the University of Bergamo have been much focused on the area of Structures:

- Biomechanical modelling of the human corneal shell, with specific reference to the simulation of corneal refractive surgeries.
- Structural Analysis of Historic Construction, with specific reference to the modeling of the iron bridge of Paderno d'Adda (1889), the concrete bridge of Brivio (1917) the "Palazzetto dello Sport", Roma (1957), by Pier Luigi Nervi.
- Formulations of non-linear computational tools for 3D truss-frame structures and cable-rib structures, with material non-linearity by Limit Analysis (evolutive elastoplastic response; kinematic method of collapse evaluation) and with geometrical non-linearity by numerical integration for the modelization of "beam-column" elements with tapered cross-sections.
- Statics of masonry arches based on Limit Analysis and on Discrete Element Method (DEM) modeling; lab building of low-scale experimental models.
- Simulation of masonry panel responses under shear induced by flat-jack testing.

- Vibration control in dynamics and earthquake engineering through the optimum tuning of Tuned Mass Damper (TMD) devices.
- Modeling of elastoplastic torsion tests on metal specimens at finite strain, accounting for the so-called Swift effect (axial length variation of the specimen); simulation of High Strain Rate phenomena, with reference also to industrial components "perforating gun" (cooperation with a local industrial partner).
- Analysis of tribological phenomena: experimental observation, modelling and inverse analysis of
  friction and heat exchange phenomena in hot rolling processes (cooperation with a local industrial
  partner).
- Parameter identification of the mechanical behaviour of metallic materials through procedures and algorithms of inverse analysis.
- Modal dynamic identification by output-only techniques in the Frequency Domain (Frequency Domain Decomposition) and in the Time Domain (Full Dynamic Compound Inverse Method), with specific reference to the seismic engineering field.
- Structural Health Monitoring (SHM) and Finite Element model updating by sensor Heterogeneous Data Fusion and Signal Processing/Denoising. Application to the analysis of historical Brivio Bridge (1917).
- Analysis of the static and dynamic (Moving Load) bending response of beams lying on a Winkler-like elastic support. Modeling and handling of Soil-Structure Interaction in various contexts (TMD tuning for seismic applications; Moving Load dynamics; seismic response of dams).

Gave thirty-seven research seminars or conference presentations at international and national institutions.

#### **PUBLICATIONS**

## (A) Articles in Refereed International Journals:

- [A.1] CAROL, I., RIZZI, E., WILLAM, K. (1994), "A unified theory of elastic degradation and damage based on a loading surface", International Journal of Solids and Structures, 31(20), p. 2835-2865, DOI: 10.1016/0020-7683(94)90072-8, ISSN: 0020-7683, Elsevier Science, Printed in Great Britain.
  - https://www.sciencedirect.com/science/article/pii/0020768394900728
- [A.2] GUZINA, B.B., RIZZI, E., WILLAM, K., PAK, R.Y.S. (1995), "Failure prediction of smeared crack formulations", Journal of Engineering Mechanics, 121(1), p. 150-161, DOI: 10.1061/(ASCE)0733-9399(1995)121:1(150), ISSN: 0733-9399, ASCE, New York, USA. https://ascelibrary.org/doi/10.1061/(ASCE)0733-9399(1995)121:1(150)
- [A.3] RIZZI, E., CAROL, I., WILLAM, K. (1995), "Localization analysis of elastic degradation with application to scalar damage", Journal of Engineering Mechanics, 121(4), p. 541-554, DOI: 10.1061/(ASCE)0733-9399(1995)121:4(541), ISSN: 0733-9399, ASCE, New York, USA. https://ascelibrary.org/doi/abs/10.1061/(ASCE)0733-9399(1995)121:4(541)
- [A.4] RIZZI, E., MAIER, G., WILLAM, K. (1996), "On failure indicators in multi-dissipative materials", International Journal of Solids and Structures, Special Issue in Memory of Juan Carlos Simo, 33(20-22), p. 3187-3214, DOI: 10.1016/0020-7683(95)00247-2, ISSN: 0020-7683, Elsevier Science, Printed in Great Britain. <a href="https://www.sciencedirect.com/science/article/abs/pii/0020768395002472">https://www.sciencedirect.com/science/article/abs/pii/0020768395002472</a>
- [A.5] LORET, B., RIZZI, E. (1997), "Anisotropic stiffness degradation triggers onset of strain localization", International Journal of Plasticity, 13(5), p. 447-459, DOI: 10.1016/S0749-6419(97)00019-3, ISSN: 0749-6419, Elsevier Science, Printed in Great Britain. https://www.sciencedirect.com/science/article/abs/pii/S0749641997000193

- [A.6] RIZZI, E., LORET, B. (1997), "Qualitative analysis of strain localization. Part I: Transversely isotropic elasticity and isotropic plasticity", International Journal of Plasticity, 13(5), p. 461-499, DOI: 10.1016/S0749-6419(97)00021-1, ISSN: 0749-6419, Elsevier Science, Printed in Great Britain. https://www.sciencedirect.com/science/article/abs/pii/S0749641997000211
- [A.7] LORET, B., RIZZI, E. (1997), "Qualitative analysis of strain localization. Part II: Transversely isotropic elasticity and plasticity", International Journal of Plasticity, 13(5), p. 501-519, DOI: 10.1016/S0749-6419(97)00022-3, ISSN: 0749-6419, Elsevier Science, Printed in Great
  - https://www.sciencedirect.com/science/article/abs/pii/S0749641997000223

Britain.

- [A.8] RIZZI, E., LORET, B. (1999), "Strain localization in fluid-saturated anisotropic elastic-plastic porous media", International Journal of Engineering Science, 37(2), p. 235-251, DOI: 10.1016/S0020-7225(98)00058-5, ISSN: 0020-7225, Elsevier Science, Amsterdam, The Netherlands.
  - https://www.sciencedirect.com/science/article/abs/pii/S0020722598000585
- [A.9] LORET, B., RIZZI, E. (1999), "Strain localization in fluid-saturated anisotropic elastic-plastic porous media with double porosity", Journal of the Mechanics and Physics of Solids, 47(3), p. 503-530, DOI: 10.1016/S0022-5096(98)00049-0, ISSN: 0022-5096, Elsevier Science, Amsterdam, The Netherlands. https://www.sciencedirect.com/science/article/abs/pii/S0022509698000490
- [A.10] RIZZI, E., PAPA, E., CORIGLIANO, A. (2000), "Mechanical behavior of a syntactic foam: experiments and modeling", International Journal of Solids and Structures, 37(40), p. 5773-5794, DOI: 10.1016/S0020-7683(99)00264-4, ISSN: 0020-7683, Elsevier Science, Amsterdam, The Netherlands. https://www.sciencedirect.com/science/article/abs/pii/S0020768399002644
- [A.11] CORIGLIANO, A., RIZZI, E., PAPA, E. (2000), "Experimental characterization and numerical simulations of a syntactic foam/glass fibre composite sandwich", Composites Science and Technology, 60(11), p. 2169-2180, DOI: 10.1016/S0266-3538(00)00118-4, ISSN: 0266-3538, Elsevier Science, Amsterdam, The Netherlands. https://www.sciencedirect.com/science/article/abs/pii/S0266353800001184
- [A.12] CAROL, I., RIZZI, E., WILLAM, K. (2001), "On the formulation of anisotropic elastic degradation. I. Theory based on a pseudo-logarithmic damage tensor rate", International Journal of Solids and Structures, 38(4), p. 491-518, DOI: 10.1016/S0020-7683(00)00030-5, ISSN: 0020-7683, Elsevier Science, Amsterdam, The Netherlands. https://www.sciencedirect.com/science/article/abs/pii/S0020768300000305
- [A.13] CAROL, I., RIZZI, E., WILLAM, K. (2001), "On the formulation of anisotropic elastic degradation. II. Generalized pseudo-Rankine model for tensile damage", International Journal of Solids and Structures, 38(4), p. 519-546, DOI: 10.1016/S0020-7683(00)00031-7, ISSN: 0020-7683, Elsevier Science, Amsterdam, The Netherlands. https://www.sciencedirect.com/science/article/abs/pii/S0020768300000317
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