

Scientific Publications of Michele Griffa

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In red, PhD/Master/Bachelor student authors/co-authors at the time of the publication.

Papers in SCI(E) Journals

PUBLISHED

1. **F. Yang**, **F. Prade**, **M. Griffa**, R. Kaufmann, J. Herzen, F. Pfeiffer, P. Lura, *X-ray dark-field contrast imaging of water transport during hydration and drying of early-age cement-based materials*, *Materials Characterization* **142**, 560-576 (2018). DOI: 10.1016/j.matchar.2018.06.021. [Abstract](#).
2. E. Franzoni, A. Leemann, **M. Griffa**, P. Lura, *The „Terranova“ render of the Engineering Faculty in Bologna (Giuseppe Vaccaro, 1931-1935): An example of outstanding durability*, *Materials and Structures* **50**, 221/1-14 (2017). DOI: 10.1617/s11527-017-1083-x. [Abstract](#).
3. S. Josset, **L. Hansen**, **P. Orsolini**, **M. Griffa**, **O. Kuzior**, B. Weisse, T. Zimmermann, T. Geiger, *Microfibrillated cellulose foams obtained by a straightforward freeze-thawing-drying procedure*, *Cellulose* **24** (9), 3825-3842 (2017). DOI: 10.1007/s10570-017-1377-8. [Abstract](#).
4. **B.W. Hailesilassie**, I. Jerjen, **M. Griffa**, M. Partl, *A closer scientific look at foam bitumen*, *Road Mat. Pav. Design* **18**(2), 362-375 (2017). DOI: 10.1080/14680629.2016.1213513. [Abstract](#).
5. **T.D. Lämmlein**, **F. Messina**, **M. Griffa**, G.P. Terrasi, P. Lura, *Bond performance of sand coated UHM CFRP tendons in High Performance Concrete*, *Polymers* **9**(2), 78 (18 pages) (2017). DOI: 10.3390/polym9020078. [Abstract](#).
6. **C. Di Bella**, **M. Griffa**, T.J. Ulrich, P. Lura, *Early-age elastic properties of cement-based materials as a function of decreasing moisture content*, *Cem. Concr. Res.* **89**, 87-96 (2016). DOI: 10.1016/j.cemconres.2016.08.001. [Abstract](#).
7. **M.C. Cavalli**, **M. Griffa**, **S. Bressi**, M.N. Partl, G. Tebaldi, L. Poulikakos, *Multi-scale imaging and characterization of asphalt concrete with recycled asphalt*, *J. of Microscopy* **264**(1), 22-33 (2016). DOI: 10.1111/jmi.12412. [Abstract](#).
8. **F. Yang**, **M. Griffa**, A. Bonnin, R. Mokso, **C. Di Bella**, B. Münch, R. Kaufmann, P. Lura, *Visualization of water drying in porous materials by X-ray phase contrast imaging*, *J. Microscopy* **261**(1), 88-104 (2016). DOI: 10.1111/jmi.12319. [Abstract](#).
9. **B. Ferdowsi**, **M. Griffa**, R.A. Guyer, P.A. Johnson, C. Marone, J. Carmeliet, *Acoustically-induced slip in sheared granular layers: application to dynamic earthquake triggering*, *Geophys. Res. Lett.* **42**, 9750-9757 (2015). DOI: 10.1002/2015GL066096. [Abstract](#).
10. E. Franzoni, **G. Graziani**, E. Sassoni, G. Bacilieri, **M. Griffa**, P. Lura, *Solvent-based ethyl silicate for stone consolidation: influence of the application technique on*

penetration depth, efficacy and pore occlusion, *Mat. Struct.* **48**, 3503-3515 (2015). DOI: 10.1617/s11527-014-0417-1. [Abstract](#).

11. **C. Di Bella**, M. Wyrzykowski, **M. Griffa**, P. Termkhajornkit, G. Chanvillard, H. Stang, A. Eberhardt, P. Lura, *Application of microstructurally-designed mortars for studying early-age properties: Microstructure and mechanical properties*, *Cem. Concr. Res.* **78**, 234-244 (2015). DOI: 10.1016/j.cemconres.2015.08.001. [Abstract](#).
12. **F. Yang**, **F. Prade**, **M. Griffa**, I. Jerjen, **C. Di Bella**, J. Herzen, **A. Sarapata**, F. Pfeiffer, P. Lura, *Dark-field X-ray imaging of unsaturated water transport in porous materials*, *Appl. Phys. Lett.* **105**, 154105 (2014). DOI: 10.1063/1.4898783. [Abstract](#).
13. **B. Ferdowsi**, **M. Griffa**, R.A. Guyer, P.A. Johnson, C. Marone, J. Carmeliet, *Three-dimensional discrete element modeling of triggered slip in sheared granular media*, *Phys. Rev. E* **89**, 042204 (2014). DOI: 10.1103/PhysRevE.89.042204. [Abstract](#).
14. C. Payan, T.J. Ulrich, P-Y. Le Bas, **M. Griffa**, P. Schuetz, M.C. Remillieux, T.A. Saleh, *Probing material nonlinearity at various depths by the use of time reversal mirror and focal time delay analysis*, *Appl. Phys. Lett.* **104**, 144102 (2014). DOI: 10.1063/1.4871094.
15. P.A. Johnson, **B. Ferdowsi**, **B. Kaproth**, **M. Scuderi**, **M. Griffa**, J. Carmeliet, R.A. Guyer, P-Y. Le Bas, D.T. Trugman, C. Marone, *Acoustic emission and microslip precursors to stick-slip failure in sheared granular media*, accepted for publication in *Geophys. Res. Lett.* **40**, 5627-5631 (2013). DOI: 10.1002/2013GL057848. [Abstract](#). In the news: [Faults may emit earthquake warning signs](#).
16. **B. Ferdowsi**, **M. Griffa**, R.A. Guyer, P.A. Johnson, C. Marone, J. Carmeliet, *Microslips as precursors of large slip events in the stick-slip dynamics of sheared granular layers: a discrete element model analysis*, *Geophys. Res. Lett.* **40**, 4194-4198 (2013). DOI: 10.1002/grl.50813. [Abstract](#).
17. **B. Ferdowsi**, **M. Griffa**, R.A. Guyer, P.A. Johnson, J. Carmeliet, *Effect of boundary vibration on the frictional behavior of a dense sheared granular layer*, *Acta Mech.* **225**, 2227-2237 (2014). DOI: 10.1007/s00707-014-1136-y. Pre-print available at <http://arxiv.org/abs/1401.6308>. [Abstract](#).
18. **A. Patera**, D. Derome, **M. Griffa**, J. Carmeliet, *Hysteresis in swelling and sorption of wood tissue*, *J. Struct. Biol.* **182**, 226-234 (2013). DOI: 10.1016/j.jsb.2013.03.003.
19. **H. Derluyn**, **M. Griffa**, D. Mannes, I. Jerjen, **J. Dewanckele**, P. Vontobel, A. Sheppard, D. Derome, V. Cnudde, E. Lehmann, J. Carmeliet, *Characterizing saline uptake and salt profiles in porous limestone with neutron radiography and X-ray micro-tomography*, *J. Build. Phys* **36** (4), 353-374 (2013). DOI:10.1177/1744259112473947.
20. M. Scalerandi, **M. Griffa**, P. Antonaci, M. Wyrzykowski, P. Lura, *Nonlinear elastic response of thermally damaged consolidated granular media*, *J. Appl. Phys.* **113**, 154902 (2013). DOI: 10.1063/1.4801801.
21. **M. Griffa**, **B. Ferdowsi**, R.A. Guyer, E.G. Daub, P.A. Johnson, C. Marone, J. Carmeliet, *Influence of vibration amplitude on dynamic triggering of slip in sheared granular layers*, *Phys. Rev. E* **87** (1), 012205 (2013). DOI: 10.1103/PhysRevE.87.012205. [Abstract](#).

22. **M. Griffa**, **B. Ferdowsi**, E.G. Daub, R.A. Guyer, P.A. Johnson, C. Marone, J. Carmeliet, *Meso-mechanical analysis of deformation characteristics for dynamically triggered slip in a granular medium*, *Phil. Mag.* **92** (28-30), 3520-3539 (2012). DOI: 10.1080/14786435.2012.700417.
23. M. Sedighi-Gilani, **M. Griffa**, D. Mannes, E. Lehmann, J. Carmeliet, D. Derome, *Visualization and quantification of liquid water transport in softwood by means of neutron radiography*, *Int. J. Heat Mass Transp.* **55**, 6211-6221 (2012).
24. **M. Griffa**, E.G. Daub, R.A. Guyer, P.A. Johnson, C. Marone, J. Carmeliet, *Vibration-induced slip in sheared granular layers and the micromechanics of dynamic earthquake triggering*, *Europhys. Lett.* **96**, 14001/1-6 (2011). DOI: 10.1209/0295-5075/96/14001.
25. B.E. Anderson, **M. Griffa**, T.J. Ulrich, P.A. Johnson, *Time reversal reconstruction of finite size sources in elastic media*, *J. Acoust. Soc. Amer.* **130** (4), EL219-EL225 (2011). DOI: 10.1121/1.3635378.
26. B.E. Anderson, **M. Griffa**, P-Y. Le Bas, T.J. Ulrich, P.A. Johnson, *Experimental implementation of reverse time migration for nondestructive evaluation applications*, *J. Acoust. Soc. Amer.* **129** (1), EL8-EL14 (2011). DOI: 10.1121/1.3526379.
27. D. Derome, **M. Griffa**, M. Koebel, J. Carmeliet, *Hysteretic swelling of wood at cellular scale probed by phase-contrast X-ray tomography*, *J. Struct. Biol.* **173**, 180-190 (2011). DOI: 10.1016/j.jsb.2010.08.011. [Abstract](#).
28. M. Scalerandi, **M. Griffa**, P.A. Johnson, *Robustness of computational time reversal imaging in media with elastic constant uncertainties*, *J. Appl. Phys.* **106** (11), 114911-1/10 (2009). DOI: 10.1063/1.3269718. [Abstract](#).
29. T.J. Ulrich, K. Van Den Abeele, P-Y. Le Bas, **M. Griffa**, B.E. Anderson, R.A. Guyer, *Three Component Time Reversal: Focusing Vector Components Using A Scalar Source*, *J. Appl. Phys.* **106** (11), 113504-1/7 (2009). DOI: 10.1063/1.3259371. [Abstract](#).
30. B.E. Anderson, R.A. Guyer, T.J. Ulrich, P-Y. Le Bas, C. Larmat, **M. Griffa**, P.A. Johnson, *Energy current imaging method for time reversal in elastic media*, *Appl. Phys. Lett.* **95** (2), 021907-1/3 (2009). DOI: 10.1063/1.3180811. [Abstract](#).
31. B.E. Anderson, T.J. Ulrich, **M. Griffa**, P-Y. Le Bas, M. Scalerandi, A.S. Gliozzi, P.A. Johnson, *Experimentally identifying masked sources applying time reversal with the selective source reduction method*, *J. Appl. Phys.* **105** (8), 083506-1/11 (2009). DOI: 10.1063/1.3079517. [Abstract](#).
32. T.J. Ulrich, **M. Griffa**, B.E. Anderson, *Symmetry-based imaging condition in time-reversed acoustics*, *J. Appl. Phys.* **104**, 064912-1/8 (2008). DOI:10.1063/1.2980323. [Abstract](#).
33. M. Scalerandi, A.S. Gliozzi, B.E. Anderson, **M. Griffa**, P.A. Johnson, T.J. Ulrich, *Selective Source Reduction to identify masked sources using Time Reversal Acoustics*, *J. Phys. D Appl. Phys.* **41**, 155504-1/12 (2008).
34. **M. Griffa**, B.E. Anderson, R.A. Guyer, T.J. Ulrich, P.A. Johnson, *Investigation of the robustness of time reversal acoustics in solid media through the reconstruction of*

- temporally symmetric sources*, J. Phys. D Appl. Phys. **41**, 085415-1/14 (2008).
35. B.E. Anderson, **M. Griffa**, C. Larmat, T.J. Ulrich, P.A. Johnson, *Time Reversal*, Acoustics Today **4** (1), 4-16 (2008).
36. P.P. Delsanto, C.A. Condat, N. Pugno, A.S. Gliozzi, **M. Griffa**, *A multilevel approach to cancer growth modeling*, J. Theor. Biol. **250** (1), 16-24 (2008).
37. A.S. Gliozzi, **M. Griffa**, M. Scalerandi, *Efficiency of Time Reversed Acoustics in Nonlinear Defect Imaging in Solids*, J. Acoust. Soc. Amer. **120** (5), 2506-2517 (2006).
38. M. Scalerandi, **M. Nobili**, **M. Griffa**, A. Gliozzi, F. Bosia, *A Preisach-Mayergoyz approach to fatigue induced irreversibility*, Phys. Rev. B **73**, 092103 (2006).
39. **M. Bentahar**, **H. El. Aqra**, R. El Guerjouma, **M. Griffa**, M. Scalerandi, *Hysteretic elasticity in damaged concrete: quantitative analysis of slow and fast dynamics*, Phys. Rev. B **73**, 014116 (2006).
40. P.P. Delsanto, **M. Griffa**, C.A. Condat, **S. Delsanto**, **L. Morra**, *Bridging the gap between mesoscopic and macroscopic models: the case of multicellular tumor spheroids*, Phys. Rev. Lett. **94**, 148105 (2005).
41. **M. Griffa**, M. Scalerandi, C. Camagna, *Influence of the Medium Rigidity on the Growth of Multicellular Tumor Spheroids*, European Physical Journal: Applied Physics **30**, 65-71 (2005).
42. **M. Griffa**, M. Scalerandi, *Environmental physical modulation of intrinsic tendency to growth of Multicellular Tumor Spheroids: in silico experiments*, Phys. Scripta **T118**, 183 - 186 (2005).
43. **M. Griffa**, M. Scalerandi, *Physical modeling and simulations of tumor growth and angiogenesis: predictions and new hypotheses*, Phys. Scripta **T118**, 179 -182 (2005).
44. P.P. Delsanto, **L. Morra**, **S. Delsanto**, **M. Griffa**, C. Guiot, *Towards a Model of Local and Collective Mechanisms in Multicellular Tumor Spheroids Growth*, Phys. Scripta **T118**, 157 - 160 (2005).

ACCEPTED

SUBMITTED

1. G. Voisard, **A. Malekos**, A. Patera, S. Carl, S. Hartmann, **M. Griffa**, E. Mazza, D. Derome, R. Guidon, G. Brochu, *Deformation of explanted inguinal hernia prostheses in humans by X-ray micro-CT*, submitted to Medical Image Analysis (April 2018).
2. P. Zhu, S. Brunner, S. Zhao, **M. Griffa**, A. Leemann, N. Toropovs, A. Malekos, M. Koebel, P. Lura, *Aerogel-cement mortars for improving the fire safety of high-performance concrete linings in tunnels*, submitted to Cem. Concr. Compos. (March 2018).

3. **S. Iswar**, **M. Griffa**, R. Kaufmann, M. Beltran, **L. Huber**, S. Brunner, M. Lattuada, M.K. Koebel, W.J. Malfait, *Effect of aging on thermal conductivity of fiber-reinforced aerogel composites: An X-ray micro-tomography investigation*, submitted to Micropor. Mesopor. Mat. (Febr. 2018).

IN PREPARATION

1. **M. Griffa**, **G. Igarashi**, M. Scalerandi, A. Leemann, J. Neuenschwander, S. Sanabria, P. Lura, *Alkali-Silica Reaction damage progression: detection by nonlinear ultrasounds and characterization by X-ray micro-tomography*, to be submitted to Cem. Concr. Res.

2. **M. Griffa**, **G. Igarashi**, A. Leemann, J. Neuenschwander, P. Lura, *An investigation of the correlations between cracking and the nonlinear elastic behavior of concrete by X-ray micro-tomography*, to be submitted to J. Appl. Phys.

3. **M. Griffa**, A. Leemann, B. Münch, R. Mokso, F. Marone, P. Lura, *Synchrotron radiation-based X-ray Tomographic Microscopy of Alkali-Aggregate Reaction damage produced in concrete by different acceleration protocols*, to be submitted to J. Microscopy.

Papers in non-SCI(E) Journals

1. M. Scalerandi, **M. Griffa**, *Modelling the coupling between apoptosis and host rigidity in the growth of Multicellular Tumour Spheroids*, WSEAS Transactions on Biology and Biomedicines **1**, 237 (2004).

2. **M. Griffa**, **S. Delsanto**, **L. Morra**, P.P. Delsanto, *Mesosopic Modeling of Multicellular Tumor Spheroids: Validation through a Quantitative Comparison with Experimental Data*, WSEAS Transactions on Biology and Biomedicines **1**, 249 (2004).

Papers in Proceedings of International Conferences

1. **S. Hu**, **F. Yang**, **M. Griffa**, R. Kaufmann, G. Anton, A. Maier, C. Riess, *Towards quantification of kidney stones using X-ray dark-field tomography*, Proceed. Of the 14th IEEE International Symposium on Biomedical Imaging, April 18th - 21st 2017, Melbourne, Australia. [Abstract](#). DOI: [10.1109/ISBI.2017.7950711](https://doi.org/10.1109/ISBI.2017.7950711).

2. **U.M. Arepalli**, R.B. Mallick, P. Mathisen, L. Poulidakos, **M. Griffa**, S. Hartmann, D. Nener-Plante, *A study of hot mix asphalt (HMA) susceptible to moisture induced material loss*, Proceed. of 96th Annual Meeting of the Transportation Research Board, Paper n° 17-04156. [Abstract](#).

3. **F. Yang**, **M. Griffa**, **A. Hipp**, H. Derluyn, P. Moonen, R. Kaufmann, M. Boone, F. Beckmann, P. Lura, *Advancing the visualization of pure water transport in porous materials by fast, Talbot interferometry-based multi-contrast X-ray Micro-Tomography*, Proceed. SPIE 9967, Paper 99670L, „Development of X-ray Tomography X“, Aug. 28th - Sept. 1st 2016, San Diego (CA), USA (August 2016). DOI: 10.1117/12.2236221. [Abstract](#).

4. L. Poulidakos, **M. Griffa**, **M.C. Cavalli**, M. Partl, *Digital sieving as a tool for designing*

high RAP mixtures, [International Symposium on Asphalt Pavements and Environment \(ISAP2016\)](#) and [53rd Annual Petersen Asphalt Research Conference](#), July 18th - 21st 2016, Western Research Institute, Jackson Hole (USA).

5. R. Kaufmann, **F. Yang**, M. Beltran, S. Hartmann, **M. Griffa**, P. Lura, A. Neels, *Dark-Field Imaging on Micro- and Macro-Focus Sources in Comparison with Normal Micro-CT for Building Materials*, Proceed. 19th World Conference on Non-Destructive Testing (WCNDT 2016), June 13th - 17th 2016, Munich (Germany).
6. R. Kaufmann, **F. Yang**, **F. Prade**, **M. Griffa**, I. Jerjen, **C. Di Bella**, J. Herzen, **A. Sarapata**, F. Pfeiffer, P. Lura, A. Neels, *Enhancing X-ray imaging of liquids in porous materials*, Proceedings of the [Digital Industrial Radiology and Computed Tomography \(DIR2015\)](#) conference, June 22nd - 25th 2015, Ghent (Belgium).
7. R. Kaufmann, A. Flisch, **M. Griffa**, S. Hartmann, J. Hofmann, I. Jerjen, **Y. Liu**, T. Lüthi, A. Neels, M. Plamondon, F.A. Reifler, P. Schuetz, **C. Stritt**, **F. Yang**, A. Dommann, *New directions in X-ray tomography*, Proceedings of the 11th European Conference on Non-Destructive Testing (ECNDT 2014), September 6th - 10th 2014, Prague (Czech Republic).
8. B. Weber, M. Wyrzykowski, **M. Griffa**, S. Carl, E. Lehmann, P. Lura, *Neutron radiography of heated high-performance mortar*, MATEC Web of Conferences **6**, 03004 (2013). DOI: 10.1051/matecconf/20130603004. [Abstract](#). [3rd International Workshop on Concrete Spalling due to Fire Exposure \(Fire Spalling 2013\)](#), September 25th - 27th 2013, Paris (France). Peer-Reviewed.
9. **M. Griffa**, B. Münch, **G. Igarashi**, A. Leemann, R. Mokso, I. Jerjen, P. Schuetz, P. Lura, *Damage in Cement-based Materials by the Alkali-Aggregate Reaction: Detection and Characterization by X-ray Tomographic Microscopy*, extended abstract, pages 317-320, Book of Abstracts (Vol. 2, Posters), [1st International Conference on Tomography of Materials and Structures \(ICTMS2013\)](#), July 1st - 5th 2013, Ghent (Belgium). Peer-Reviewed.
10. P. Antonaci, A.S. Gliozzi, **M. Griffa**, M. Scalerandi, *Damage assessment in solids through nonlinear ultrasonics in the time domain*, Proceed. of the 13th International Symposium on Nondestructive Characterization of Materials, May 20th - 24th 2013, Le Mans, France. 8 pages (Peer-Reviewed)
11. **H. Derluyn**, **M. Griffa**, D. Mannes, I. Jerjen, **J. Dewanckele**, P. Vontobel, A. Sheppard, M. N. Boone, D. Derome, V. Cnudde, E. Lehmann, J. Carmeliet, *Probing salt crystallization damage mechanisms in porous limestone with neutron radiography and X-ray tomography*, Proceedings of the 5th International Building Physics Conference, the 5th IBPC organizing committee (eds.), May 28th - 31st 2012, Kyoto, Japan, 95-102 (Peer-Reviewed).
12. **H. Derluyn**, **M. Griffa**, D. Mannes, I. Jerjen, **J. Dewanckele**, P. Vontobel, D. Derome, V. Cnudde, E. Lehmann, J. Carmeliet, *Quantitative analysis of saline transport and crystallization damage in porous limestone visualized by neutron and X-ray imaging*, Proceedings of the Salt and Weathering on Buildings and Stone Sculptures (SWBBS) 2011 conference, October 19th - 22nd 2011, Limassol, Cyprus (Peer-Reviewed).
13. B.E. Anderson, **M. Griffa**, T.J. Ulrich, P-Y. Le Bas, R.A. Guyer, P.A. Johnson, *Crack localization and characterization in solid media using time reversal techniques*, Proceedings of the 44th US Rock Mechanics Symposium, June 27th - 30th 2010, Salt

Lake City, Utah, USA (Peer-Reviewed).

14. B.E. Anderson, T.J. Ulrich, **M. Griffa**, P.A. Johnson, M. Scalerandi, A. Gliozzi, *Selective Source Reduction to Identify Masked Smaller Sources Using Time Reversal Acoustics*, Proceedings of QNDE (Quantitative Non-Destructive Evaluation) 2007 Conference, July 22nd - 27th 2007, Golden, Colorado, USA.
15. T.J. Ulrich, B.E. Anderson, **M. Griffa**, *Improving Focal Determination of Time Reversed Acoustic Signals*, Proceedings of QNDE (Quantitative Non-Destructive Evaluation) 2007 Conference, July 22nd - 27th 2007, Golden, Colorado, USA.
16. B.E. Anderson, P.A. Johnson, T.J. Ulrich, **M. Griffa**, *Complex source imaging using time-reversal (TR): experimental studies of spatial and temporal resolution limits*, Proceedings of the 153rd Meeting of the Acoustical Society of America, June 4th - 8th 2007, Salt Lake City, Utah, USA.
17. **M. Griffa**, P.A. Johnson, R.A. Guyer, T.J. Ulrich, B.E. Anderson, *Time Reversal Acoustics (TRA) reconstruction of symmetric-in-time sources in solid elastic specimens: investigation of the effects of finite-size transducers on TRA in solids*, Proc. XII International Workshop on Nonlinear Elasticity in Materials (IWNEM), Ajaccio (Corsica), June 3rd - 9th 2007.
18. **M. Nobili**, F. Bosia, A. Gliozzi, **M. Griffa**, M. Scalerandi, *Acoustic Emission and Nonlinear Elasticity in Fatigue Induced Damage*, Proceedings of the 12th International Congress on Sound and Vibration - ICSV12 - Lisbon, July 11th - 14th 2005.
19. F. Bosia, P.P. Delsanto, A. Gliozzi, **M. Griffa**, **M. Nobili**, M. Scalerandi, *Acoustic Emission and Nonlinear Hysteretic Elasticity: a combined model*, Proceedings of the 12th International Congress on Sound and Vibration - ICSV12 - Lisbon, July 11th - 14th 2005.
20. **M. Bentahar**, R. El Guerjouma, **M. Griffa**, M. Scalerandi, *Méthodes émergentes en acoustique non-linéaire pour le contrôle non destructif et le contrôle de santé des matériaux*, Proceedings of the 17th French Congress of Mechanics, August 29th - September 2nd, Troyes (France).
21. **S. Delsanto**, **L. Morra**, **M. Griffa**, C. Demartini, *A Genetic Algorithms' Approach to the Exploration of Parameter Space in Mesoscopic Multicellular Tumor Spheroids Models*, Conference Proceedings, IEEE EMBC 2004 (26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society), 1-5 Sept. 2004, Vol. 1, 675-678;

Chapters in Books

1. M. Scalerandi, **M. Nobili**, **M. Griffa**, A.S. Gliozzi and F. Bosia, *Numerical Analysis of the Anomalous Elastic Behavior of Hysteretic Media: Quasi-Static, Dynamic and Relaxation Experiments*, Chapter 17, pag. 267-284, in *The universality of nonclassical nonlinearity/ with applications to NDE and Ultrasonics*, edited by P.P. Delsanto, Springer (New York), 2006.
2. **S. Delsanto**, **M. Griffa**, **L. Morra**, *Inverse Problems and Genetic Algorithms. Applications in NDE/NDT & Ultrasonics*, Chapter 22, pag. 369-386, in *The universality of nonclassical nonlinearity/ with applications to NDE and*

Ultrasonics, edited by P.P. Delsanto, Springer (New York), 2006.

Technical reports

A. Leemann, **M. Griffa**, [*Diagnosis of alkali-aggregate reaction in dams*](#), state-of-the-art report, Swiss Federal Office of Energy project nr. [SI/500863-01](#).