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### Publications (liste étendue)

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#### **Revue internationale avec comité de lecture**

- [1] Schoefs F, Le KT, Lanata F (2013) Response surface meta-models for the assessment of embankment frictional angle stochastic properties from monitoring: application to harbour structures. *Computers & Geotechnics*, 53, 122-132.
- [2] Del Grosso A, Lanata F (2013) A long-term static monitoring experiment on R.C. beams: damage identification under environmental effect. *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, doi:10.1080/15732479.2012.761251
- [3] Marques P, Costa A, Lanata F (2012) Service life of RC structures: chloride induced corrosion: prescriptive versus performance-based methodologies. *Materials and Structures*, 45(1), 277-296.
- [4] Lanata F, Schoefs F (2011) Multi-Algorithm Approach for Identification of Structural Behaviour of Complex Structures under Cyclic Environmental Loading. *Structural Health Monitoring*, 11(1), 51-67.
- [5] Schoefs F, Yáñez-Godoy H, Lanata F (2011) Polynomial Chaos Representation for Identification of Mechanical Characteristics of Instrumented Structures. *Computer-Aided Civil and Infrastructure Engineering*, 26(3), 173-189.
- [6] Posenato D, Lanata F, Inaudi D, Smith IFC (2008) Model Free Data Interpretation for Continuous Monitoring of Complex Structures. *Advanced Engineering Informatics*, 22(1), 135-144.
- [7] Lanata F, Del Grosso A (2006) Damage Detection and Localization for Continuous Static Monitoring of Structures using a Proper Orthogonal Decomposition (POD) of Signals. *Smart Materials and Structures*, 15(6), 1811-1829.
- [8] Del Grosso A, Lanata F (2001) Data Analysis and Interpretation for Long-Term Monitoring of Structures. *International Journal for Restoration of Buildings and Monuments*, 7, 285-300.

#### **Numéro spécial de revue internationale, issu de congrès avec comité de lecture**

- [9] Lanata F, Posenato D (2007) A Multi-Algorithm Procedure for Damage Location and Quantification in the Field of Continuous Static Monitoring of Structures. *Key Engineering Materials*, 347, 89-94.

#### **Chapitre dans un ouvrage**

- [10] Del Grosso A, Lanata F, Basso P (2013) SHM and Adaptivity Concepts in the Reduction of Risks Associated to Structural Failures. In *Industrial Safety and Life Cycle Engineering*. Chapter 7, 123-164.
- [11] Mercalli A, Lanata F (2009) Monitoring the Effect of Tendon Defects on Dynamic Response. In Polder, Alonso, Cleland, Elsener, Proverbio, Vennesland & Raharinaivo (eds.), *COST 534 - New Materials, Systems, Methods and Concepts for Prestressed Concrete Structures - Final Report*. Part 5: New Service Life Approaches, 351-356. Brussels: COST Office. (ISBN 9789059863323)

#### **Conférence internationale avec comité de lecture et actes publiés**

- [12] Lanata F (2013) An on-going monitoring project of a new timber structure. In *Structural Health Assessment of Timber Structures*; Proc. Int. Conf. SHATIS13, Trento, Italy, September 2013 (CD-ROM, 757-764). (ISBN 978-3-03795-481-2)
- [13] Thöns S, Lanata F (2013) Risk and operation optimized damage detection and inspection systems. In *Structural Safety & Reliability*; Proc. Int. Conf. ICOSSAR 2013, New York, June, 2013.
- [14] Del Grosso A, Lanata F (2012) Reliability estimate of damage detection algorithms. In *Reliability Engineering and Risk Management*; Proc. Int. Conf. ISRERM'2012, Yokohama, Japan, August 2012.
- [15] Tran TV, Bastidas-Arteaga E, Schoefs F, Bonnet S, O'Connor AJ, Lanata F (2012) Structural reliability analysis of deteriorating RC bridges considering spatial variability. In *Bridge Maintenance, Safety and Management*; Proc.

Int. Conf. *IABMAS 12*, Lake Como, Italy, July 2012.

[16] Lanata F, Del Grosso A (2011) Reliability issues in damage identification via structural health monitoring. In *Structural Health Monitoring of Intelligent Infrastructure*; Proc. Int. Conf. *SHMII-5*, Cancun, Mexico, December 2011.

[17] Lanata F, Schoefs F (2011) Stochastic Model Uncertainties via Markov Chain Monte Carlo: Application to Structural Monitoring. *ICASP 11*, Zurich, Switzerland, August 2011, 8 pp.

[18] Del Grosso A, Inaudi D, Lanata F, Posenato D (2011) SHM of Ageing Reinforced Concrete Structures. In *Smart Monitoring, Assessment and Rehabilitation of Civil Structures*; Proc. Middle East Conf. *SMAR 2011*, Dubai, UAE, February 2011 (CD-ROM, ID 265).

[19] Lanata F (2010) Health Monitoring of Concrete Bridges: Model Simulations of Prestressed Beams under Static Environmental Loading Based on Experimental Data. In *Bridge Maintenance, Safety and Management*; Proc. Int. Conf. *IABMAS 10*, Philadelphia, USA, July 2010, 130 (CD-ROM, 464-471).

[20] Del Grosso A, Lanata F, Posenato D, Mercalli A (2010) Validation of an SHM Procedure for Concrete Bridges Based on Static Strain Records. In *Bridge Maintenance, Safety and Management*; Proc. Int. Conf. *IABMAS 10*, Philadelphia, USA, July 2010, 174 (CD-ROM, 730-737).

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[23] Lanata F, Del Grosso A, Mercalli A, Posenato D (2009) Non-Destructive Methods using Fiber Optic Deformation Sensors for Damage Identification in Pre-stressed Concrete Structures. In *NDTCE '09*; Proc. Int. Symp. *NDTCE 09*, Nantes, France, June-July 2009, 229-234. Paris: LCPC.

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[25] Del Grosso A, Lanata F, Pieracci A, Brunetti G, Inaudi D (2008) Health Monitoring of Old Structures in the Port of Genoa. In *Construction Heritage in Coastal and Marine Environments*; Proc. Int. Conf. *MEDACHS 08*, Lisbon, Portugal, January 2008, 91-92 (CD-ROM, 8 pp). Lisbon: LNEC.

[26] Lanata F, Posenato D, Inaudi D (2007) Data Anomaly Identification in Complex Structures using Model Free Data Statistical Analysis. In *Structural Health Monitoring of Intelligent Infrastructure*; Proc. Int. Conf. *SHMII-3*, Vancouver, Canada, November 2007 (CD-ROM, 8 pp).

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[29] Lanata F, Posenato D (2007) A Multi-Algorithm Procedure for Damage Location and Quantification in the Field of Continuous Static Monitoring of Structures. In *Damage Assessment of Structures VII*; Proc. Int. Conf. *DAMAS 2007*, Turin, Italy, June 2007, 89-94. Zurich: Trans Tech Publications.

[30] Posenato D, Lanata F, Inaudi D, Smith IFC (2006) Model Free Interpretation of Monitoring Data. In *Intelligent Computing in Engineering and Architecture*, Subseries: Lecture Notes in Artificial Intelligence, 4200, *EG-ICE Workshop*, Ascona, Switzerland, June 2006, Revised Selected Papers, 529-533. Berlin: Springer-Verlag.

### **Conférence internationale avec actes publiés (sans comité de lecture)**

[31] Del Grosso A, Lanata F (2012) Reliability of decisions based on lifetime functions and monitoring data. In *Life-Cycle and Sustainability of Civil Infrastructure Systems*; Proc. Int. Symposium *IALCCE'12*, Vienna, Austria, October 2012.

[32] Le KT, Schoefs F, Lanata F (2012) Meta-models for the assessment of soil stochastic properties from

monitoring: application to harbour structures. In *Smart Structures*; Proc. European Conf. *EACS 2012*, Genoa, Italy, June 2012 (Full paper #213 on CD-ROM, 12 pp).

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[34] Del Grosso A, Lanata F (2011) Uncertainties in damage identification and lifetime functions of ageing concrete structures. In *Structural Health Monitoring*; Proc. Int. Workshop *SHM 2011*, Stanford, CA, September 2011, 1871-1878.

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### **Conférence nationale avec comité de lecture et actes publiés**

- [62] Lanata F, Schoefs F, Le KT (2010) Modélisation de l'Incertainitude par Chaos Polynomial et par Chaîne Markov-Monte-Carlo de la Fiabilité de Structures Portuaires. In *Maîtrise des Risques et de Sécurité de Fonctionnement*; Proc. *Lambda Mu 17*, La Rochelle, France, October 2010, 162 (USB key, 9 pp).
- [63] Lanata F, Schoefs F (2010) Calcul en Fiabilité : Comparaison entre CP et MCMC lors de l'Identification de Variables à partir d'Instrumentation. In *Ouvrages en Service et Développement Durable*; Proc. *AUGC 2010*, La Bourboule, France, June 2010, 183-184 (on-line at <http://cust.univ-bpclermont.fr/~augc/page10.html>, 10 pp). Aubière: Imp Sciences.
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### ***Conférence nationale avec actes publiés (sans comité de lecture)***

[66] Lanata F, Del Grosso A, Mercalli A, Pardi L (2007) Impiego di Sensori a Fibre Ottiche e di Accelerometri nel Monitoraggio della Corrosione. In *Giornate Nazionali sulla Corrosione e Protezione*; Proc. VII Edition, Messina, Italy, June 2007, 149-156. Milan: AIM.

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### ***Rapport technique***

- Lanata F (2011) Stochastic modeling of chlorides penetration for the maintenance of concrete structures. Six-month Post-doc Research Report. GeM–DRED Action Région Pays de la Loire, January-June 2011.
- Lanata F (2010) Stochastic modeling of chlorides penetration for the maintenance of concrete structures. Annual Post-doc Research Report. GeM–DRED Action Région Pays de la Loire, January-December 2010.
- Fourny A, Bonnet S, Lanata F, Roche M, Schoefs F, Palma-Lopes S, Du Plooy R (2010) Mesures, essais accélérés et instrumentation pour le chantier pilote: Terminal agroalimentaire poste 1, May 2010, Technical report N.7, FUI-MAREO Project.
- Lanata F, Schoefs F (2009) San Giorgio Pier data analysis: summary of significant results. GeM Internal Report (GeM-ECS-1006ins01), June 2009, 17 pages (on-line at <http://gem.ec-nantes.fr>, pôle “Structures et Couplages”, équipe “Calcul des Structures”, Thème 2).
- Del Grosso A, Lanata F. Development of technologies for the structural monitoring of harbour structures. Annual Research Report N.1-2. Genoa Port Authority–DISEG University of Genoa Agreement, December 2007-December 2008. (In Italian)
- Del Grosso A, Lanata F. Development of technologies for the structural monitoring of harbour structures. Six-month Progress Report N.1-2-3-4-5. Genoa Port Authority–DISEG University of Genoa Agreement, July 2006-May 2009. (In Italian)
- Carassale L, Lanata F (2006) Vibration analysis of civil structures during the construction of a new railway. Felsilab S.r.l.–DISEG University of Genoa, March 2006, 152 pp. (In Italian)