

## Liste des articles scientifiques 2014 du CEA LIST MANUFACTURING AVANCE

### **Conference**

Caldas, A.; Micaelli, A.; Grossard, M.; Makarov, M.; Rodriguez-Ayerbe, P. & Dumur, D.  
New metric for wrench space reachability of multifingered hand with contact uncertainties  
*IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM, Institute of Electrical and Electronics Engineers Inc.*, **2014**, 1236-1242

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### **Conference**

Castaño-Cano, D. b.; Grossard, M. & Hubert, A.  
Multi-axis force sensing with pre-stressed resonant composite plates: An alternative to strain gauge force sensors  
*IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM, Institute of Electrical and Electronics Engineers Inc.*, **2014**, 1361-1367

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### **Article**

David, O.; Russotto, F.-X.; Da Silva Simoes, M. & Measson, Y.  
Collision avoidance, virtual guides and advanced supervisory control teleoperation techniques for high-tech construction: Framework design  
*Automation in Construction, Elsevier*, **2014**, *44*, 63-72

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### **Article**

El Khoury Moussa, R.; Grossard, M.; Boukallel, M.; Hubert, A. & Chaillet, N.  
Modeling and control of a piezoelectric microactuator with proprioceptive sensing capabilities  
*Mechatronics*, **2014**

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### **Article**

Lopez, T.; Chevaillier, P.; Gouranton, V.; Evrard, P.; Nouviale, F.; Barange, M.; Bouville, R. & Arnaldi, B.  
Collaborative virtual training with physical and communicative autonomous agents  
*Computer Animation and Virtual Worlds*, **2014**

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Lopez, T.; Chevaillier, P.; Gouranton, V.; Evrard, P.; Nouviale, F.; Barange, M.; Bouville, R. & Arnaldi, B.  
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*Computer Animation and Virtual Worlds, John Wiley and Sons Ltd*, **2014**, *25*, 487-495

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### **Article**

Magistris, G.; Micaelli, A.; Evrard, P. & Savin, J.  
A human-like learning control for digital human models in a physics-based virtual environment  
*The Visual Computer*, **2014**

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### **Article**

Makarov, M.; Caldas, A.; Grossard, M.; Rodríguez-Ayerbe, P. & Dumur, D.  
Adaptive filtering for robust proprioceptive robot impact detection under model uncertainties

*IEEE/ASME Transactions on Mechatronics, Institute of Electrical and Electronics Engineers Inc.*, **2014**, 19, 1917-1928

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**Article**

Dallard, J. b. c. d.; Merhlot, X.; Duprey, S. c. d.; Wang, X. c. d. & Micaelli, A.

Fingertip finite element modelling - on choosing the right material property

*Computer Methods in Biomechanics and Biomedical Engineering, Taylor and Francis Ltd.*, **2014**, 17, 30-31

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Makarov, M.; Grossard, M.; Rodríguez-Ayerbe, P. & Dumur, D.

Comparison of two robust predictive control strategies for trajectory tracking of flexible-joint robots

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Design of a fully modular and backdrivable dexterous hand

*International Journal of Robotics Research, SAGE Publications Inc.*, **2014**, 33, 783-798

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Sylla, N. b.; Bonnet, V.; Colledani, F. & Fraise, P.

Ergonomic contribution of ABLE exoskeleton in automotive industry

*International Journal of Industrial Ergonomics, Elsevier*, **2014**, 44, 475-481

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Bakkali, M.; Lhémy, A.; Baronian, V. & Berthelot, F.

Guided wave propagation and scattering in pipeworks comprising elbows

*AIP Conference Proceedings, American Institute of Physics Inc.*, **2014**, 1581 33, 332-339

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Caire, F.; Granet, G.; Prémel, D.; Rubinacci, G.; Tamburrino, A. e. & Ventre, S.

The symposium project: Numerical modeling of a carbon on steel manufacturing benchmark case

*Studies in Applied Electromagnetics and Mechanics, IOS Press*, **2014**, 39, 93-100

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Caire, F.; Prémel, D. & Granet, G.

Semi-analytical computation of a quasi-static field induced by a 3D eddy current probe scanning a 2D layered conductor with parallel rough interfaces

*International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **2014**

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Chapuis, B.; Jenson, F.; Calmon, P.; Dicrisci, G.; Hamilton, J. & Pomié, L.

Simulation supported POD curves for automated ultrasonic testing of pipeline girth welds

*Welding in the World, Springer Verlag*, **2014**, 58, 433-441

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Costin, M.; Vabre, A. & Moch, L.

Measurement of the mass concentration of flowing powder by fast X-ray CT

*Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, **2014**

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Doinikov, A.; Novell, A.; Calmon, P. & Bouakaz, A.

Simulations and measurements of 3-D ultrasonic fields radiated by phased-array transducers using the westervelt equation

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POD evaluation using simulation: A phased array UT case on a complex geometry part

*AIP Conference Proceedings, American Institute of Physics Inc.*, **2014**, *1581* 33, 2031-2038

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El Bakkali, M.; Lhémy, A.; Baronian, V. & Grondel, S.

A modal formulation for the propagation of guided waves in straight and curved pipes and the scattering at their junction

*Journal of Physics: Conference Series, Institute of Physics Publishing*, **2014**, *498*

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**Article**

Ferrand, A.; Darmon, M.; Chatillon, S. & Deschamps, M.

Modeling of ray paths of head waves on irregular interfaces in TOFD inspection for NDE

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Ferrand, A.; Darmon, M.; Chatillon, S. & Deschamps, M.

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*Journal of Physics: Conference Series, Institute of Physics Publishing*, **2014**, *498*

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Edge diffraction coefficients around critical rays

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Gardahaut, A.; Jezzine, K. & Cassereau, D. c.

Paraxial ray-tracing approach for the simulation of ultrasonic inspection of welds

*AIP Conference Proceedings, American Institute of Physics Inc., 2014, 1581 33, 529-536*

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Simulation of ultrasonic wave propagation in welds using ray-based methods

*Journal of Physics: Conference Series, Institute of Physics Publishing, 2014, 498*

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#### **Article**

Hassan, W. b.; Barre, S. & Legoupil, S.

Study of the behavior of vapor fraction in a turbopump inducer using an X-ray measurement technique

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#### **Conference**

Iakovleva, E.; Chatillon, S.; Bredif, P. & Mahaut, S.

Multi-mode TFM imaging with artifacts filtering using CIVA UT forwards models

*AIP Conference Proceedings, American Institute of Physics Inc., 2014, 1581 33, 72-79*

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#### **Conference**

Lambert, J.; Rougeron, G.; Lacassagne, L. & Chatillon, S.

A fast ultrasonic simulation tool based on massively parallel implementations

*AIP Conference Proceedings, American Institute of Physics Inc., 2014, 1581 33, 1999-2006*

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#### **Conference**

Le Bourdais, F. & Marchand, B.

Development of electromagnetic acoustic transducer (EMAT) phased arrays for SFR inspection

*AIP Conference Proceedings, American Institute of Physics Inc., 2014, 1581 33, 1022-1029*

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Leroy, E.; Lozada, J. & Hafez, M.

A curved ultrasonic actuator optimized for spherical motors: Design and experiments

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Miorelli, R.; Dubois, A.; Bilicz, S.; Theodoulidis, T. & Reboud, C.

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Miorelli, R.; Reboud, C.; Lesselier, D.; Poulakis, N. & Theodoulidis, T.  
Rebello J.M.A. Kojima F., C. T. (Ed.)  
ECT simulation of complex narrow cracks in planar multi-layered structures  
*Studies in Applied Electromagnetics and Mechanics*, **2014**, 38, 103-110  
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*AIP Conference Proceedings, American Institute of Physics Inc.*, **2014**, 1581 33, 2086-2092  
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Coupled approach VIM-BEM for efficient modeling of ECT signal due to narrow cracks and volumetric flaws in planar layered media  
*NDT and E International*, **2014**, 62, 178-183  
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EMAT generation of bulk forces in a ferromagnetic plate and their equivalent surface stresses  
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*Journal of Physics: Conference Series, Institute of Physics Publishing*, **2014**, 498  
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Implementation of a GPU accelerated total focusing reconstruction method within CIVA software  
*AIP Conference Proceedings, American Institute of Physics Inc.*, **2014**, 1581 33, 1983-1990  
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*Studies in Applied Electromagnetics and Mechanics*, IOS Press, **2014**, 39, 128-135

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Tisseur, D.; Costin, M.; Mathy, F. & Schumm, A.

Simulation of computed radiography with imaging plate detectors

*AIP Conference Proceedings*, American Institute of Physics Inc., **2014**, 1581 33, 1861-1867

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Results of the 2013 UT modeling benchmark obtained with models implemented in CIVA  
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*Polymer Testing, Elsevier Ltd*, **2014**, 35, 34-44  
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