

**Liste des publications 2008 des chercheurs ENSTA**

**Unité de mécanique**

**Articles publiés dans des revues internationales avec comité de lecture**

V. Taillandier, V. Echevin, L. Mortier and J.-L. Devenon. **Controlling the open ocean forcing of baroclinic coastal jets with a 4D-var method**. In *Dynamics of Atmospheres and Oceans*

Z. Moumni, W. Zaki and Q.S. NGuyen. **Theoretical and numerical modeling of solid-solid phase change: Application to the description of the thermomechanical behavior of shape memory alloys**. In *International Journal of Plasticity*, Vol. 24:614-645

C. Touzé, M. Amabili and O. Thomas. **Reduced-order models for large-amplitude vibrations of shells including in-plane inertia**. In *Computer Methods in Applied Mechanics and Engineering*, Vol. 197(21-24):2030-2045

S. Aumaitre, M. Berhanu, M. Bourgoïn, A. Chiffaudel, F. Daviaud, B. Dubrulle, S. Fauve, L. Marié, R. Monchaux, N. Mordant, P. Odier, F. Pétrélis, J.-F. Pinton, N. Plihon, F. Ravelet and R. Volk. **The VKS experiment: turbulent dynamical dynamos**. In *Comptes Rendus Physique*, Vol. 9:689-701

Z. Moumni, W. Zaki and H. Maitournam. **Cyclic behaviour and energy approach of the fatigue of Shape Memory Alloys**. In *Accepted in Journal of Mechanics of Materials and Structures*

F. Ravelet, M. Berhanu, R. Monchaux, S. Aumaitre, A. Chiffaudel, F. Daviaud, B. Dubrulle, M. Bourgoïn, P. Odier, N. Plihon, J.-F. Pinton, R. Volk, S. Fauve, N. Mordant and F. Pétrélis. **Chaotic Dynamos Generated by a Turbulent Flow of Liquid Sodium**. In *Physical Review Letters*, Vol. 101:074502

C. Touzé, C. Camier, G. Favraud and O. Thomas. **Effect of imperfections and damping on the type of non-linearity of circular plates and shallow spherical shells**. In *Mathematical Problems in Engineering*, Vol. 2008:19 pages

N. Jegnenyes, D. Scuderi, J. Etchepare, B. Reynier and Z. Toth. **Time-resolved dynamics analysis of nanoparticles applying dual femtosecond laser pulse**. In *Applied Physics A*, Vol. 91(3):385-392, June

V. Nuzzo, K. Plamann, M. Savoldelli, B. Reynier, F. Pailloux, T. Cabioc'h, O. Albert and J.-M. Legeais. **Deposit of glass fragments during femosecond laser penetrating keratoplasty**. In *Graefes Arch for Clinical & Exp. Ophthalmology*, Vol. 247:107-113

O. Cadot, A. Boudaoud and C. Touzé. **Statistics of power injection in a plate set into chaotic vibration**. In *Eur. Phys. J. B*, Vol. 66:399-407

A. Boudaoud, O. Cadot, B. Odille and C. Touzé. **Observation of wave turbulence in vibrating plates**. In *Physical Review Letters*, Vol. 100:234504

S. Poncet, R. Shiestel and R. Monchaux. **Turbulence modeling of the Von K'arm'an flow: viscous and inertial stirrings**. In *International Journal of Heat and Fluid Flow*, Vol. 29:62-74

R. Monchaux, P.-H. Chavanis, A. Chiffaudel, P.-P. Cortet, F. Daviaud, P. Diribarne and B. Dubrulle. **Fluctuation-dissipation theorem and effective temperature in a turbulent von Karman flow**. In *Physical Review Letters*, Vol. 101:174502

P. Diribarne, R. Monchaux, A. Chiffaudel, P.-P. Cortet, F. Daviaud and B. Dubrulle. **Characterization of turbulence in inhomogenous anisotropic flows**. In *Physics of fluids*

N. Quaegebeur and A. Chaigne. **Mechanical resonances and geometrical nonlinearities in loudspeakers**. In *J. Audio Eng. Soc.*, Vol. 56(6):462-472

K. Dang Van, H. Maitournam, Z. Moumni and F. Roger. **A comprehensive approach for modeling fatigue and fracture of rails**. In *Accepted in Engineerig Fracture Mechanics*

**Actes de conférences avec comité de lecture**

- Z. Moumni, T. Thuy Nguyen and F. Roger. **Theoretical and numerical modelling of solid-solid phase change: Application to the description of the thermomechanical behavior of welded steel.** In *Proceedings of the International Conference ICCES'08*, Honolulu, Hawaii, April 2008
- C. Touzé, C. Camier and O. Thomas. **Type of non-linearity of damped imperfect plates using non-linear normal modes.** In *Proceedings of ENOC 2008, Non-linear Dynamics Conference*, Saint-Petersburg, Russia, July 2008
- O. Thomas, L. Nicu, C. Ayela and C. Touzé. **Buckling and non-linear vibrations of a MEMS biosensor.** In *Proceedings of ENOC 2008, Non-linear Dynamics Conference*, Saint-Petersburg, Russia, July 2008
- K. Béranger, S. Ben Ismail, P. Testor, L. Mortier and C. Sammari. **Interannual variability of water formation in the Mediterranean Sea for the last decade, invited talk.** In *MEDCLIVAR-ESF workshop*, Rhodes, Greece, October 2008
- B. Alhammoud, P.Th Meijer and K. Béranger. **A simulation of the precession-minimum and present-day Mediterranean thermohaline circulation.** In *15th Annual symposium NSG*, Utrecht, Netherlands, Nov. 2008
- K. Béranger, S. Ben Ismail, P. Testor, L. Mortier and C. Sammari. **Interannual variability of dense-water formation in the Mediterranean Sea for the last decade.** In *2nd HyMex international Workshop*, Palaiseau, France, June 2008.
- J. Beuvier, F. Sevault, S. Somot and K. Béranger. **Modelling the Mediterranean Sea interannual variability over the last 40 years: impact of the river runoff and of the Atlantic Waters.** In *Third Medclivar-ESF workshop*, Rhodes, Greece, October 2008
- P.Th Meijer, B.Alhammoud and K. Béranger. **The impact of freshwater flux on the Mediterranean thermohaline circulation: models inter-comparison study.** In *American General Assembly*, San Franscisco, USA, December 2008
- Stegner, S. Teinturier, R. Pennel, K. Béranger, G. Sutyryn and I. Taupier-Letage. **Topographic impact on coastal current and eddies.** In *2nd Hymex International workshop*, Palaiseau, France, June 2008
- M. Herrmann, J. Bouffard and K. Béranger. **Monitoring deep convection in the Mediterranean Sea: a multi-sensor approach.** In *2nd HyMex international Workshop*, Palaiseau, France, June 2008
- K. Arcas, A. Chaigne and S. Bilbao. **Sound synthesis of circular plates by finite differences.** In *Acoustics'08, ASA*, 2008
- P. Sidlof, A. Chaigne, O. Doaré and O. Cadot. **Simulation of Acoustic Pressure and Flow Velocity in Human Glottis.** In *Acoustics'08, ASA*, 2008
- P. Drobinski, K. Béranger, V. Ducrocq, J.T. Allen, G. Chronis, J. Font, G. Madec, E. Papathanassiou, N. Pinardi, C. Sammari and I. Taupier-Letage. **The HyMex (Hydrological in the Mediterranean Experiment) program: The specific context of oceanography.**

### Rapports techniques

- A.L. Gloanec and Z. Moumni. **Prise en compte des défauts dans le calcul de tenue en fatigue.** In *Contrat ENSTA-DCN Technical Report*, December 2008
- S. Ben Ismail, K. Béranger, J.-M. Lellouche and C. Sammari. **Atlas des paramètres hydrologiques des côtes tunisiennes, bulletin de l'INSTM, Tunis.** Technical Report, 2008
- S. Teinturier, R. Pennel, A. Stegner, K. Béranger, L. Mortier and T. Pichon. **Impact de la bathymétrie sur la génération des instabilités des courants côtiers: confrontation modèle numérique et expériences en laboratoire, Rapport interne DGA.** Technical Report

### Ouvrages

- A. Chaigne and J. Kergomard. **Acoustique des instruments de musique.** Belin, 2008
- E. de Langre and A. Chaigne. **Dynamique et vibrations.** Editions de l'Ecole polytechnique, 2008

## Unité de Chimie et Procédés

### Articles publiés dans des revues internationales avec comité de lecture

New Pd catalyzed aerobic oxidative cleavage and cyclization of N-aryl peptid derivatives. L. El Kaïm, L. Grimaud, T. Ibarra, R. Montano-Gamez Chem. Comm. 2008, 11, 1350-1352.

Isocyanide addition to acylphosphonates: A formal Passerini reaction of acyl chlorides. D. Coffinier, L. El Kaïm, L. Grimaud Synlett 2008, 1133-1136.

Ugi-Smiles access to pyrazine scaffolds. A. Barthelon, A. Dos Santos, L. El Kaïm, L. Grimaud Tetrahedron Lett 2008, 49, 3208-3211.

Intramolecular Kulinkovich–de Meijere reactions of various disubstituted alkenes bearing amide groups. C. Madelaine, N. Ouhamou, A. Chiaroni, E. Vedrenne, L. Grimaud, Y. Six Tetrahedron 2008 64, 8878-8898.

New MCR–Heck–Isomerization Cascade toward Indoles El Kaim, L.; Gizzi, M.; Grimaud, L. Org. Lett. 2008; 10; 3417-3419.

Thiols in Ugi- and Passerini-Smiles-type couplings A. Barthelon, L. El Kaïm, M. Gizolme, L. Grimaud. European J. Org. Chem. 2008, 35, 5974-5987.

P. Paricaud, "Phase equilibria in polydisperse nonadditive hard-sphere systems", Phys. Rev. E., 78, 021202 (2008)

V. Athès, P. Paricaud, M. Ellaïte, I. Souchon, W. Fürst, "Vapour–liquid equilibria of aroma compounds in hydroalcoholic solutions: Measurements with a recirculation method and modelling with the NRTL and COSMO-SAC approaches", Fluid Phase Equilib., 265, 139-154 (2)

Radia Inchekel, Jean-Charles de Hemptinne et Walter Fürst (2008) « The simultaneous representation of dielectric constant, volume and activity coefficients using an electrolyte equation of state », *Fluid Phase Equilibria*, 271, 1-2, 19-27.

Fabien Baillon, Elise Provost, Walter Fürst (2008) « Study of titanium (IV) speciation in sulphuric acid solutions by FT-Raman spectrometry », *Journal of Molecular Liquids*, 143, 8-12.

M. C. Martínez, D. Dalmazzone, W. Fürst, A. Delahaye et L. Fournaison (2008) « Thermodynamic properties of THF + CO<sub>2</sub> hydrates in relation with refrigeration applications », *AIChE J.*, 54, 4, 1088-1095

A. Archane, L. Gicquel, E. Provost et W. Fürst (2008) « Effect of methanol addition on water–CO<sub>2</sub>–diethanolamine system: Influence on CO<sub>2</sub> solubility and on liquid phase speciation », *Chemical Engineering Research and Design*, 86, 6, 592-599

L. Le Moyne, V. Freire, D. Queiros-Conde, « Fractal dimension and scale entropy applications in a spray », *Chaos, Solitons and Fractals*, 38 (2008) 696-704.

D. Queiros-Conde and M. Feidt, «Entropic skins geometry applied to dynamics of turbulent reactive fronts», *Int. J. of Thermodynamics*, 11 (N°1), pp. 11-19, March 2008.

D. Queiros-Conde, F. Foucher, C. Mounaïm-Rousselle, H. Kassem and M. Feidt, «A scale-entropy diffusion equation to describe the multi-scale features of turbulent flames near a wall», *Physica A* 387 (2008) 6712-6724.

Nouhig A, Cherif M, Provost E, Abderrabba M, Solubility of gallic acid, vanillin, syringic acid, and protocatechuic acid in aqueous sulfate solutions from (293.15 to 318.15) K, *Journal of chemical and engineering data* 2008, 53 (7) 1675-1678

## Unité d'électronique et d'informatique

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- Omar Hammami, Zhoukun Wang, Virginie Fresse, & Dominique Houzet A Case Study: Quantitative Evaluation of C-Based High-Level Synthesis Systems. *EURASIP Journal on Embedded Systems*. 2008 (Article ID 685128). 2008.
- Angeli, A., Filliat, D., Doncieux, S., & Meyer, J.-A. A Fast and Incremental Method for Loop-Closure Detection Using Bags of Visual Words. *IEEE Transactions On Robotics, Special Issue on Visual SLAM*. 2008.
- Vanstraceele, C., Geller, B., Barbot, J.-P., & Brossier, J.-M. A Low Complexity Block Turbo Decoder Architecture. *IEEE Transactions on Communications*. 2008.
- Alain Sibille, Carles Antón-Haro, Alister Burr, & Marco Luise Special Issue of European Wireless 2007: Advanced physical layer schemes for robust wireless communications. *European Transactions on Telecommunications*. 2008.
- Bay, S., Geller, B., Renaux, A., Barbot, J.-P., & Brossier, J.-M. On the Hybrid Cramer-Rao bound and its application to dynamical phase estimation. *IEEE Signal Processing letters*. 2008.
- H. Ghannoum, C. Roblin, & X. Begaud Investigation and Modeling of the UWB On-Body Propagation Channel. *Wireless Personal Communications, Springer*. May 2008.
- S. M. S. Sadough & P. Duhamel Improved iterative detection and achieved throughputs of OFDM systems under imperfect channel estimation. *IEEE Transactions on Wireless Communications*. 7 (12). 2008.
- Zhou, L., Zheng, B., Geller, B., Wei, A., Xu, S., & Li, Y. Cross Layer Rate Control, Medium Access Control and Routing Design in Cooperative VANET. *Computer Communications*. 2008.
- Weisheng Duan, Falko Kuester, Jean-Luc Gaudiot, & Omar Hammami Automatic object and image alignment using Fourier Descriptors. *Image and Vision Computing, Elsevier*. 26 (9). 2008.
- Bay, S., Herzet, C., Brossier, J.-M., Barbot, J.-P., & Geller, B. Analytic and Asymptotic Analysis of Bayesian Cramer-Rao Bound for Dynamical Phase Offset Estimation. *IEEE Transactions on Signal Processing*. 2008.
- Zhou, L., Zheng, B., Wei, A., Geller, B., & Cui, J. A Robust Resolution-Enhancement Scheme for Video Transmission over Mobile Ad-Hoc Networks. *IEEE Transactions on Broadcasting*. 2008.
- S. M. S. Sadough, M. Ichir, P. Duhamel, & E. Jaffrot Ultrawideband OFDM channel estimation through a wavelet based EM-MAP algorithm. *European Transactions on Telecommunications, published by Wiley & Sons*. vol. 19. 2008.
- Michel Terré, Bernhard Walke, Luis Correia, & Alain Sibille, *Wireless Communications Systems. Annals of Telecommunications*. vol. 63, n° 5/6. 2008.
- Raffaele D'Errico & Alain Sibille single and multiple scattering in UWB bicone arrays. *International Journal on Antennas and Propagation*. vol. ID 129584. 2008.

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- Omar Hammami, Zoukun Wang, Virginie Fresse, & Dominique Houzet **A Quantitative Evaluation of C-Based Synthesis on Heterogeneous Embedded Systems Design**. *2008 IEEE International Symposium on Circuits and Systems (ISCAS 2008)*. Seattle, Washington, Etats-Unis. 18-21 May.2008.
- Raffaele D'Errico & Alain Sibille **Antenna Diversity in UWB Indoor Channel**. *IEEE International Conference on Ultra-Wideband*. Hanover, Germany. 10-12 Sept.2008.
- Burrus, N., Bernard, T.M., & Jolion, J.M. **Bottom-up and top-down object matching using asynchronous agents and a contrario principles**. *Lecture Notes on Computer Science, Vol. 5008, International Conference on Computer Vision Systems (ICVS)*. Santorini, Greece. May2008. pp. 343-352.
- Zhou, L., Geller, B., Wei, A., Zheng B., Cui, J., & Xu, S. **Cross-Layer Rate Allocation for Multimedia Applications in Pervasive Computing Environment**. *Proceedings of IEEE GLOBECOM 2008, New Orleans, Nov. 2008*.
- Zhu, M., Guo, W., Xiao, S., Geller, B., Sun, W., Jin, Y., & Hu,W. **Demonstration of Time-Wavelength Co-Allocation (TWCA) Problem in Novel Dynamic Wavelength Scheduled WDM-PON for Distributed Applications**. *Proceedings of APOC, Hang Zhou, Oct. 2008*. 2008.
- Renaud Barate & Antoine Manzanera **Evolving Vision Controllers with a Two-Phase Genetic Programming System Using Imitation**. *10th International Conference on the Simulation of Adaptive Behavior (SAB'08)*. Osaka, Japan. Jul. 2008. pp. 73-82.

- Z.Wang & O.Hammami **External DDR2-Constrained NOC-Based 24-Processors MPSOC Design and Implementation on Single FPGA.** *IEEE IDT 2008.* Monastir, Tunisie. Dec.2008.
- Wei, A., Wei, G., & Geller, B. **Fast MIP Handover Amelioration in Wireless Network by Cross-layer Solution.** *Proceedings of NGMAST, Cardiff, Sept. 2008.*
- Renaud Barate & Antoine Manzanera **Generalization Performance of Vision Based Controllers for Mobile Robots Evolved with Genetic Programming.** *Genetic and Evolutionary Computation Conference (GECCO'08).* Atlanta, GA. Jul. 2008.
- M.Khaddour & O.Hammami **High Level Energy Consumption of Cryptographic algorithms: the case of AES.** *International Conference on Information & Communication Technologies: from Theory to Applications - ICTTA'08.* Damascus, Syria. April 7 - 112008.
- Wei, G., Wei, A., & Geller, B. **Improving Mobile IPv6 Handover in Wireless Network with E-HCF.** *Proceedings of IEEE VTC, Calgary, Sept. 2008.* 2008.
- Angeli, A., Filliat, D., Doncieux, S., & Meyer, J.-A. Incremental vision-based topological SLAM. *Proceedings of the 2008 IEEE International Conference on Intelligent Robots and Systems (IROS 2008).* 2008.
- Filliat, D. **Interactive learning of visual topological navigation.** *Proceedings of the 2008 IEEE International Conference on Intelligent Robots and Systems (IROS 2008).* 2008.
- Renaud Barate & Antoine Manzanera **Learning Vision Algorithms for Real Mobile Robots with Genetic Programming.** *ECSIS Symposium on Learning and Adaptive Behaviors for Robotic Systems (LAB-RS'08).* Edinburgh, UK. Aug. 2008.
- X.Li & O.Hammami **Multi-FPGA Emulation of a 48-core Multiprocessor with NOC.** *IEEE IDT 2008.* Monastir, Tunisie. Dec.2008.
- Bruno Monsuez, Franck Védrine & Nicolas Vallée **On the Design of a Formal Debugger for System Architecture.** *New aspects of circuits, Datics 08 in 12th WSEAS International Conference on CIRCUITS.* Iraklion, Greece. July2008.
- Davide Dardari & Raffaele D'Errico **Passive Ultrawide Bandwidth RFID.** *IEEE Global Telecommunications Conference (GLOBECOM).* New Orleans, USA. 30 Nov.-4 Dec. 2008.
- R. D'Errico, F. Beerens, R. Zetik, & A. Sibille **Radio channel issues for DAA between UWB and WIMAX.** *ICT Mobile Summit.* Stockholm, Sweden. , 26-28 Feb.2008.
- Angeli, A., Filliat, D., Doncieux, S., & Meyer, J.-A. **Real-Time Visual Loop-Closure Detection.** *Proceedings of the International Conference on Robotics and Automation (ICRA).* 2008.
- Burrus, N., Bernard, T.M., & Jolion, J.M. **Segmentation d'image par simulations a contrario.** *Actes 16e congrès francophone AFRIF-RFIA Reconnaissance des Formes et Intelligence Artificielle.* Amiens, France. January2008. pp. 228-237.
- Christine Dubreu, Antoine Manzanera, & Eric Bohain **Simulation of video sequences for an accurate evaluation of tracking algorithms on complex scenes.** *Proceedings of SPIE - Acquisition, Tracking, Pointing, and Laser Systems Technologies XXII.* Orlando, USA. May 2008.
- Imran Taj & Omar Hammami **Simultaneous Power and Bit Allocation through Genetic Algorithm in MB-OFDM Systems.** *Advanced Communication Technology, 2008. ICACT 2008. 10th International Conference on.* Phoenix Park, Coree du Sud. 17-20 Feb. 2008.
- A. Sibille **Statistical antenna modelling.** *29<sup>th</sup> URSI General Assembly.* Chicago, USA. 10-16 Aug. 2008.
- Bilel Benhamamouch & Bruno Monsuez **SystemC waiting-state automata.** *VECoS'08.* Leeds, United-Kingdom. July 2008. Seyed Mohammad
- M. A. Mellah, Ch. Roblin, & A. Sibille **UWB Antennas Integration Effects for Wireless Communications Applications.** *EUROEM.* Lausanne. 21-25 Jul. 2008.
- Ch. Roblin **Ultra Compressed Parametric Modeling for symmetric or pseudo-symmetric UWB Antenna.** *ICUWB 2008.* Hannover. 10-12 Sept.2008.
- C. Roblin & A. Sibille **Ultra Compressed Parametric Modeling of UWB Antenna Measurements using symmetries.** *29<sup>th</sup> URSI General Assembly.* Chicago, USA. 10-16 Aug. 2008.

**Communications non soumises à comité de lecture**

Ch. Roblin & R. D'Errico **Statistical Analysis of UWB Antenna Radiation and Scattering: Theory and Modelling**. *COST 2100*. Lille. 6-8 Oct. 2008.

A. Sibille **Statistical antenna modelling**. *COST 2100 Management Committee Meeting*. Trondheim, Norway. 4-6 June 2008.

### **Rapport de recherche**

A.Cortel, C. Barla, S. Bories, R. Dalmolin, C. Delaveaud, J.-M. Gorce, J.-M. Laheurte, D. Lautru, L. Ouvry, C. Roblin, A. Sibille, & J. Wiat **BANET project - Deliverable D1.3.2 - State of the Art in Body Area Networks**. August 2008.

A. Sibille, A. Mellah, M. Abdennebi, Ph. Godlewski, H. Kamal, & M. Coupechoux **URC project - Deliverable D3.1.2 - Validation by simulation (2<sup>nd</sup> version): core models**. October 2008.

R. D'Errico, A. Sibille, & C. Roblin **PULSERS II deliverable D5.6.2 - Application specific selection and design criteria for UWB antenna arrays**. . July 2008.

## **Unité de Mathématiques Appliquées**

### **Chapitres d'ouvrages**

Different Types of Finite Elements, "Computational Acoustics of Noise Propagation in Fluids" Gary Cohen, Andreas Hauck, Manfred Kaltenbacher and Toru Otsuru Springer-Verlag, pp. 57-88, 2008

Space time mesh refinement methods. "Effective computational methods for wave propagation", Grégoire Derveaux, Patrick Joly and Jerónimo Rodríguez Numer. Insights, vol. 5, pp. 385-424, Chapman & Hall/CRC, vol. 5, pp. 385-424, 2008

The mathematical model for elastic wave propagation. "Effective computational methods for wave propagation". Patrick Joly Numer. Insights, vol. 5, pp. 247-266, Chapman & Hall/CRC, vol. 5, pp. 247-266, 2008

Finite element methods with continuous displacement. "Effective computational methods for wave propagation". Patrick Joly Numer. Insights, vol. 5, pp. 247-266, Chapman & Hall/CRC, vol. 5, pp. 247-266, 2008

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Fictitious domains methods for wave diffraction. "Effective computational methods for wave propagation", Patrick Joly and Chrysoula Tsogka Numer. Insights, vol. 5, pp. 359-384, Chapman & Hall/CRC, vol. 5, pp. 359-384, 2008

Numerical methods for treating unbounded media. "Effective computational methods for wave propagation", Patrick Joly and Chrysoula Tsogka Numer. Insights, vol. 5, pp. 425-472, Chapman & Hall/CRC, vol. 5, pp. 425-472, 2008

### **Articles publiés dans des revues internationales avec comité de lecture**

A characterization of singular electromagnetic fields by an inductive approach  
Franck Assous, Patrick Ciarlet Jr. and Emmanuelle Garcia. Numerical Analysis and Modeling, vol. 5, pp. 491-515, 2008

Application of kernel-based stochastic gradient algorithms to option pricing Kengy Barty, Pierre Girardeau, Cyrille Strugarek and Jean-Sébastien Roy. Monte Carlo Methods and Applications, vol. 14, pp. 99-127, jul, 2008

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Peter Benner, Jing-Rebecca Li and Thilo Penzl. Numerical Linear Algebra with Applications, vol. 15, pp. 755-777, 2008

On a graph coloring problem arising from discrete tomography Cédric Bentz, Marie-Christine Costa, Dominique de Werra, Christophe Picouleau and Bernard Ries. Networks, vol. 51 (4), pp. 256-267, 2008

The Inactivation Principle: Mathematical Solutions Minimizing the Absolute Work and Biological Implications for the Planning of Arm Movements Bastien Berret, Christian Darlot, Frédéric Jean, Thierry Pozzo, Charalambos Papaxanthis and Jean-Paul Gauthier. PLoS Computational Biology, Oct, 2008

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Convergence results of the fictitious domain method for a mixed formulation of the wave equation with a Neumann boundary condition, Éliane Bécache, Jerónimo Rodríguez and Chrysoula Tsogka

Mathematical Modelling and Numerical Analysis, dec, 2008 Singular trajectories of control-affine systems Yacine Chitour, Frédéric Jean and Emmanuel Trélat, SIAM J. Control Optim., vol. 47, No.2, 2008

A new approach for approximating linear elasticity problems Patrick Ciarlet Jr. and Philippe Ciarlet, C. R. Acad. Sci. Paris, Ser. I, vol. 346, pp. 351-356, 2008

Computing electromagnetic eigenmodes with continuous Galerkin approximations Patrick Ciarlet Jr. and Grace Hechme Comput. Methods Appl. Mech. Engrg, vol. 198, pp. 358-365, 2008

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A convergent scheme for a non-local coupled system modelling dislocations densities dynamics  
Ahmad El Hajj and Nicolas Forcadel *Mathematics of Computation*, vol. 77, pp. 789-812, 2008

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Nicolas Forcadel, *Differential and Integral Equations*, vol. 21(3-4), pp. 285-304, 2008

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Houssein Haddar, Patrick Joly and Hoai Minh N'Guyen, *Math. Models Methods Appl. Sci.*, vol. 18, 10, pp. 1787-1827, 2008

An improved multimodal approach for non uniform acoustic waveguides Christophe Hazard and Eric Lunéville *IMA Journal of Applied Math.*, vol. 73 (4), pp. 668-690, 2008

Efficient methods for computing spectral projectors for linearized hydrodynamic equations, Grace Hechme, Yuri Nechepurenko and Miloud Sadkane *SIAM J. Sci. Comput.*, vol. 31, pp. 667-686, dec, 2008

Construction and analysis of improved Kirchoff conditions for acoustic wave propagation in a junction of thin slots Patrick Joly and Adrien Semin, *ESAIM Proceeding*, vol. 25, pp. 44-67, dec, 2008

Matching of asymptotic expansions for wave propagation in media with thin slots II. The error estimates Patrick Joly and Sébastien Tordeux *M2AN, Math. Model. Numer. Anal.*, vol. 42, pp. 193-221, 2008

Almost sure convergence of randomly truncated stochastic algorithms under verifiable conditions Jérôme Lelong *Statistics & Probability Letters*, vol. 78, 2008

A Spurious-Free Space-Time Mesh Refinement for Elastodynamics, Jerónimo Rodríguez, *International Journal for Multiscale Computational Engineering*, vol. 6, pp. 263-279, 2008

#### **Actes de Conférences avec comité de lecture**

A multiscale approach for solving Maxwell's equations in waveguides with conical inclusions, Franck Assous and Patrick Ciarlet Jr., *ICCS'08, Lecture Notes in Computer Science*, vol. 5102, pp. 331-340, Springer, 2008

Numerical simulation of non destructive testing experiments in an elastic waveguide, Vahan Baronian, Anne-Sophie Bonnet-BenDhia, Eric Lunéville and Alain Lhémy, *Ultrasonic Wave Propagation in Non Homogeneous Media*, Springer, jun, 2008

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The method of quasi-reversibility to solve the Cauchy problems for elliptic partial differential equations Laurent Bourgeois and Eric Lunéville, *PAMM*, vol. 7, pp. 104201-104202, Special Issue: Sixth International Congress on Industrial Applied Mathematics (ICIAM07), Wiley, 2008

Syndrome Based Collision Resistant Hashing, Matthieu Finiasz, *PQCrypto 2008*, Springer, oct, 2008