

Program of GDR Meeting - Anglet 2-6 June 2008

Monday 2 June 2008

9 h 00	Welcome and Coffee-break
10 h 00	Keynote : Andrew NORRIS Acoustic cloaking theory
11 h 00	Jean-Marc CONOIR, S. Robert, A. El Mouhtadi et F. Luppé The WKB method applied to the reflection-transmission by a depth-varying random distribution of cylinders in a fluid slab- like region
11 h 30	Vincent PAGNEUX Edge resonance in elastic waveguides
12 h 00	<i>Lunch</i>
14 h 00	Joseph MOYSAN, C. Gueudre, M.-A. Ploix, G. Corneloup, P. Guy et B. Chassignole Advances in ultrasonic testing of austenitic stainless steel welds. Towards a 3d description of the material including attenuation and optimisation by inversion.
14 h 30	George CONNOLLY, M. Lowe, S. Rokhlin and A. Temple Imaging of defects in austenitic steel welds using an ultrasonic array
15 h 00	Martin SHANAHAN Materials and Mechanical Aspects of Bonded Joints
15 h 30	<i>Coffee-break</i>
16 h 00	Andrew YOUNG, A. Mulholland and R. O'Leary The causal differential scattering approach to calculating the effective properties of random composite materials with a particle size distribution
16 h 30	Michel DARMON, N. Leymarie, S. Chatillon et S. Mahaut Modelling of scattering of ultrasounds by flaws for NDT
17 h 00	Anne-Sophie BONNET-BEN DHIA, B. Goursaud, C. Hazard et A. Prieto Finite element computation of leaky modes in stratified waveguides

Tuesday 3 June 2008

9 h 00	Keynote : Stéphane ROUX On the use of (static) digital image correlation for identifying material heterogeneities and non linear behaviors
10 h 00	<i>Coffee-break</i>
10 h 30	Richard CHALLIS, A. Holmes and V. Pinfield Ultrasonic bulk wave propagation in concentrated heterogeneous slurries
11 h 00	Christian LICHT et A. Léger Propagation in an elastic body with a thin adhesive layer
11 h 30	Damien LEDUC, B. Morvan, A.-C. Hladky et J.-L. Izbicki Obliquely incident Lamb wave on a 2D surface grating
12 h 00	V.P.SMYSHLYAEV Wave propagation in high contrast elastic composites via non-classical homogenization
12 h 30	<i>Lunch</i>
14 h 00	Dominique DOMINGUEZ About the use of modelling for NDT reliability assessment
14 h 30	Tony VALIER-BRASIER, C. Potel, M. Bruneau et C. Depollier Acoustic wave attenuation in a rough-walled waveguide filled with a dissipative fluid
15 h 00	Laurent LAGUERRE et F. Treyssède Some advances towards a better understanding of wave propagation in civil engineering multi-wire strand
15 h 30	<i>Coffee-break</i>
16 h 00	Vahan BARONIAN, A. Lhémy et A.-S. Bonnet-Ben Dhia Un modèle hybride pour simuler des contrôles ultrasonores par ondes élastiques guidées
16 h 30	Hamad HAZIM Finite element for a beam in dynamical regime with unilateral contact
17 h 00	Mourad BENTAHAR, A. Marec, R. El Guerjouma et J.-H. Thomas Non linear acoustic fast and slow dynamics of damaged composite materials : correlation to acoustic emission

Wednesday 4 June 2008

9 h 00	Keynote : Bruce DRINKWATER Ultrasonic arrays: the post processing approach
10 h 00	Coffee-break
10 h 30	Stéphane JUNCA et B. Rousselet Asymptotic expansions for primary models with unilateral vibrations.
11 h 00	Bruno LOMBARD et J. Piraux Propagation of compressional elastic waves through a 1-D medium with contact nonlinearities
11 h 30	Weina KE et M. Castaings 3D Finite element simulations of an air-coupled ultrasonic NDT system
12 h 00	Lunch
14 h 00	EXCURSION
20 h 30	Dinner Of Official Reception

Thursday 5 June 2008

9 h 00	Keynote : H�el�ene BARUCQ The Reverse time migration technique coupling with finite element methods
10 h 00	<i>Coffee-break</i>
10 h 30	Guillaume HUET, M. Darmon, A. Lh�emery et S. Mahaut Modelling of corner echo ultrasonic inspection with bulk and creeping waves
11 h 00	Maxime BAVENCOFFE, A.-C. Hladky, B. Morvan et J.-L. Izbicki Attenuation of Lamb waves at the vicinity of forbidden band in a phononic crystal
11 h 30	Bernard MASSEREY and P. Fromme Coupled Rayleigh-like waves for defect detection in plate structures
12 h 00	Dmitry ZAKHAROV 3D orthogonality for the SAW evaluation in the far field of viscoelastic layered solids with or without fluid loading
12 h 30	<i>Lunch</i>
14 h 00	Nicolas TERRIEN et D. Osmont Damage detection in foam core sandwich structures using guided waves
14 h 30	Laurent BOURGEOIS et E. Lun�eville Imaging obstacles in acoustic waveguides using Linear Sampling method
15 h 00	Hugues LOURME, B. Hosten et P. Brassier FE and experimental investigations of ultrasonic guided waves diffracted by adhesive lap joints.
15 h 30	<i>Coffee-break</i>
16 h 00	Albert PHANG and R. Challis Guided waves in filled and empty pipes with optimised magnetostrictive transduction.
16 h 30	Emmanuel LE CLEZIO Caract�erisation ultrasonore de mat�eriaux pi�zo�electriques
17 h 00	Emilie FRANCESCHINI, F. Yu and G. Cloutier. Ultrasound characterization of aggregated red blood cells: toward an in vivo application

Friday 6 June 2008

9 h 00	Slah YAACOUBI et L. Laguerre, E. Ducasse et M. Deschamps. A 3D semi-analytical model to predict the behaviour of ultrasonic bounded beam travelling in cylindrical solid bar embedded in a solid matrix.
9 h 30	Victor ZERNOV and L. Fradkin Modelling losses in the layered solid structures partially immersed in water
10 h 00	Mathieu CHEKROUN, L. Le Marrec, B. Lombard, J. Piraux et O. Abraham. Comparisons between multiple scattering methods and direct numerical simulations for elastic wave propagation in concrete
10 h 30	<i>Coffee-break</i>
11 h 00	Louis SATYANARAYAN, J. Vander Weide, N. Declercq et Y. Berthelot Investigation of A novel polymer foam material for air coupled ultrasonic transducer applications
11 h 30	Jamal ASSAAD, S. Grondel, F. El Youbi, E. Moulin et C. Delebarre Dual signal processing approach for embedded Lamb wave based systems
12 h 00	<i>Lunch</i>
14 h 00	Visit of Dassault-Aviation

Posters

1	B. LE CROM et M. Castaings The use of guided ultrasonic waves for testing bonds between composite patches and metallic plates.
2	Arthur GAUTESSEN and L. Fradkin. Comparison of two different semi-analytical approaches to the elastic wedge diffraction problem
3	Bastien CHAPUIS, N. Terrien, D. Royer et A. Deom Structural health monitoring of bonded composite patches using Lamb Waves
4	Vincent DORVAL, F. Jenson et G. Corneloup Simulation of structural noise and attenuation occurring in ultrasonic NDT of polycrystalline materials
5	Alex FIDAHOUSSEN, P. Calmon et M. Lambert Ultrasonic array reconstruction methods for the localization and the characterization of defects in complex NDT configurations
6	Lionel HAUMESSER Mesure de paramètres non-linéaires en acoustique ultrasonore : étude critique de dispositifs expérimentaux.
7	Anne MAREC, J.-H. Thomas et R. El Guerjouma. Investigation of damage mechanisms of composite materials: Multivariable analysis based on temporal and wavelet features extracted from acoustic emission signals
8	Cécile BARON et S. Naili Propagation d'ondes élastiques dans un guide d'onde à gradient de propriétés unidirectionnel sous chargement fluide : application à la caractérisation ultrasonore de la résistance osseuse
9	Mihai CALEAP, C. Aristégui et O. Poncelet Coherent elastic wave propagation through non-uniform spatial crack-distribution
10	Frédéric LEBON, C. Licht et A. Léger Asymptotic analysis of soft thin interfaces: the elastostatic case