



**International Workshop**  
**« Dynamic behaviour of green composites »**  
**ISAE-ENSMA, Poitiers (France)**  
**27-29 September 2016**

# Programme

**Oral sessions : A102 ; poster sessions : A106**

## Tuesday 27th September

**13h - Registration**

**13h30 - Introduction**

**14h15 - 15h00 - Conference by S. Richet and N. Ravassard**

*PSA Group, Material Direction, Vélizy, France*

Eco-design and green materials - PSA Group.

**15h00 - 15h25 - \*J. Tirillò, \*F. Sarasini, \*L. Ferrante, \*T. Valente, \*L. Lampani, \*P. Gaudenzi, \*\*E. Barbero, \*\*S. S.-Sáez**

*\*University of Roma, Italy ; \*\*University of Madrid, Spain*

High-velocity impact behaviour of hybrid basalt-carbon/epoxy composites.

**15h25 - 15h50 - \*P. H. Malinowski, \*\*F. Touchard, \*\*M. Boustie, \*\*L. Chocinski-Arnault, \*\*P. Pascual Gonzalez, \*\*\*L. Berthe, \*\*\*\*D. de Vasconcellos, \*\*\*\*L. Sorrentino, \*W. M. Ostachowicz**

*\*IMP-PAN, Gdansk, Poland ; \*\*Institut P', Poitiers, France ; \*\*\*PIMM, Paris, France ; \*\*\*\*IPCB, Napoli, Italy*

Assessment of damage in green composites induced by laser and mechanical shocks.

**15h50 - 16h25 - Coffee and poster session**

**\*.\*\*H. Daoud, \*J.-L. Rebière, \*A. El Mahi, \*\*M. Taktak, \*\*M. Haddar**

*\*LAUM, Le Mans, France ; \*\*University of Sfax, Tunisia*

Vibration behaviour of a flax fibres reinforced composite with an interleaved natural viscoelastic layer.

**\*B. Bouacherine, \*A. Iddou, \*\*S. Benhammadi, \*\*\*L. C. de Ménorval**

*\*University of Mostaganem, Algeria ; \*\*University of Oran, Algeria ; \*\*\*University of Montpellier, France*

Adsorption of lead (II) in liquid-solid interfaces of natural hydroxiapatite. A batch study.

**16h25 - 16h50 - K. R. Ramakrishnan, S. Corn, N. Le Moigne, P. Slangen, P. Ienny, R. Leger, A. Bergeret**

*Ecole des Mines d'Alès, France*

An experimental and numerical study of the impact resistance of flax fibre reinforced composite laminates.

**16h50 - 17h15 - \*P. Russo, \*L. Sorrentino, \*\*F. Sarasini, \*\*J. Tirillò, \*\*\*F. Touchard, \*\*\*L. Chocinski-Arnault, \*\*\*D. Mellier**

*\*IPCB, Napoli, Italy ; \*\*University of Roma, Italy ; \*\*\*Institut P', Poitiers, France*

A new architecture of polypropylene/woven glass fiber composites: flexural and low-velocity impact performances.

**17h15 - 17h40 - F. Bataille, E. Leroy**

*VALAGRO, Poitiers, France*

Industrial use of poly(lactic acid) - Improvement of properties and biodegradation.

**18h : Bus departure for Welcoming cocktail**

## Wednesday 28th September

### 8h45 - 9h30 - Conference by C. Santulli

*University of Camerino, Italy*

Fatigue properties of vegetable fibre composites: a review.

### 9h30 - 9h55 - R. Viala, V. Placet, M. Ouisse, S. Cogan, E. Foltete

*FEMTO-ST, University of Bourgogne Franche-Comté, France*

Determination of elastic and damping properties of flax-epoxy composite plates and their variation with moisture content using a numerical-experimental identification method based on dynamic testing.

### 9h55 - 10h20 - A. Perrier, R. Ecault, F. Touchard, M. V. Urriza, J. Baillargeat, L. Chocinski-Arnault, M. Boustie

*Institut P', Poitiers, France*

Laser shock test application for mechanical characterisation of fibre/matrix interface.

### 10h20 - 10h55 - Coffee and poster session

### 10h55 - 11h35 - Conference by F. Lavelle

*CNES, Paris, France*

Is the launchers market an opportunity for green composites materials?

### 11h35 - 12h00 - R. Ecault, F. Guibert, N. Colin, N. Dominguez, S. Barut, S. Rolet

*Airbus Group Innovations, Blagnac, France*

Non Destructive Testing of aeronautic composite parts – new methods for new challenges.

### 12h15 - 14h00 - lunch at Restaurant "Les colonnes gourmandes"

### 14h15 -15h00 - Conference by F. Sarasini

*University of Roma, Italy*

Hybrid biocomposites: concepts, opportunities and challenges.

### 15h00 - 15h25 - \*C. Audibert, \*A.S. Andreani, \*\*J.C Grandidier, \*\*E. Laine

*\*RESCOLL, site de Rochefort, France ; \*\*Institut P', Poitiers, France*

Dynamic behavior of a hybrid woven kevlar-lin/epoxy composite.

### 15h25 - 15h50 - \*I. Derbali, \*S. Terekhina, \*L. Guillaumat, \*\*P. Ouagne

*\*ENSAM, Angers, France ; \*\*PRISME, Orléans, France*

Mechanical behavior of comingled woven flax/PP composites subjected to low velocity impact: from manufacturing to damage repair taking into account moisture conditions.

### 15h50 - 16h25 - Coffee and poster session

### 16h25 - 16h50 - \*-\*\*M. d'Auria, \*\*\*V. Volpe, \*\*D. Davino, \*\*\*R. Pantani, \*L. Sorrentino

*\*IPCB, Napoly, Italy ; \*\*University of Sannio, Italy ; \*\*\*University of Salerno, Italy*

Effects of an external magnetic field on polymeric foam-ferromagnet composites.

### 16h50 - 17h15 - \*S. Tayane, \*\*M. Oumam, \*Z. Rhandour, \*\*S. Aboul-Hrouz, \*\*S. Mansouri, \*\*H. Hannache, \*A. Bennamara, \*\*A. Abourriche

*\*ENSAM, Casablanca, Morocco ; \*\*University of Casablanca, Morocco*

Mechanical behavior of composite materials based on olive pomace.

### 17h30 - Bus departure for Evening event

## Thursday 29th September

### 8h45 - 9h30 - Conference by \*-\*\*W. M. Ostachowicz

**\*T. Wandowski, \*P. H. Malinowski,\*P. Kudela**

*\*IMP-PAN, Gdansk, Poland ; \*\*University of Warsaw, Poland*

Nondestructive Evaluation of Composite Structures.

### 9h30 - 9h55 - D. Brizard, S. Ronel

*IFSTTAR, Université de Lyon, France*

Measurement uncertainty evaluation procedure for SHPB stress-strain curves.

### 9h55 - 10h20 - \*R. Matadi Boumbimba, \*\*M. Reulier, \*\*E. Hablot,\*\*\* K. Wang, \*\*\*\*N. Bahlouli, \*\*\*S. Ahzi, \*\*L. Avérous

*\*National Engineering School of Metz, France ; \*\*University of Strasbourg, France ; \*\*\*Qatar Foundation, Doha, Qatar ; \*\*\*\*ICUBE, Strasbourg, France*

Modelling of compressive high strain rate behavior of biocomposite: application to dimer fatty acid-based polyamides with cellulose fibres.

### 10h20 - 10h55 - Coffee and poster session

### 10h55 - 11h20 - \*H. Yang, \*\*F. Richard, \*F. Gehring, \*C. Poilâne

*\*ENSICAEN, Caen, France ; \*\*FEMTO ST, Besançon, France*

Non linear behavior of flax/epoxy unidirectional composite.

### 11h20 - 11h45 - \*-\*\*Y. Lebaupin, \*T.-Q. Truong Hoang, \*M. Chauvin, \*\*F. Touchard

*\*ESTACA, Laval, France ; \*\*Institut P', Poitiers, France*

Influence of stacking sequence on low velocity impact and post-impact behavior of flax/Polyamide 11 composites.

### 11h45 - 12h10 - DJ. Basaid, C. Aribi, T. Kanit

*University of Boumerdes, Algeria*

Study of cyclic behavior of laminate based in glass fiber and epoxy resin.

### 12h15 - 14h15 - lunch - Buffet at ISAE-ENSMA

### 14h15 - End of the Workshop

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