



JEC americas

Conferences, Table-Tops and Networking
BOSTON, OCTOBER 28, 29, 2014



Event program

Design & Engineering

JEC
GROUP

The N°1 Composites Network in the World

> In Partnership with





Focus On:

- **Conceptual Design on October 28th**
- **Industrial Sectors on October 29th**



Composites design and engineering represent a tough challenge for industries and are a primordial topic to delve into.

From material selection to processing methods and structural studies, our conferences will provide in depth presentations as well as specific cases for major industries such as the aeronautics and automotive.

The Simulation theme is the focus throughout the whole event, thanks to the Conferences, the Simulation Composite Circle and the Simulation Innovation Awards that will take place.

This event is a great opportunity to take part in **networking meetings**.

WHAT YOU WILL **LEARN**

Design & Engineering

with a specific highlight on **Automotive & Aerospace**



Key topics:

virtual design

industrial design

prototyping

virtual engineering and testing

modeling and simulation

metrology

SUMMARY

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Key Focus

 **Focus On** Day 1

Changing perspectives in composite design

Composite design is one of the main preemptive steps when it comes to the production of parts, and is an important tool for time gain, as well as behavioral predictions. It allows for noticeable opportunities to assess producibility of new structures. This quick and accessible optimization of structures is very useful in many major industries such as the aeronautics and automotive ones.

 **Focus On** Day 1

From behavior simulation to product development

Numerical simulation of the mechanical behavior of composites structures has quickly become a priority in order to optimize the development of specific parts. Performance assessments and therefore product optimization are only two of the many goals of focusing on behavioral simulation. Furthermore, modeling software are becoming increasingly efficient, allowing to improve the accuracy and reliability of virtual prototyping.

 **Focus On** Day 2

Outlook for carbon composites usage in Aerospace

In the aircraft industry, composite materials are being more and more widely used. Indeed, they have given the possibility to overcome obstacles met when using the materials individually. New generations of aircrafts and an increase in production numbers make the demand for composite materials in this industry very consequent. Carbon fiber presents the dual challenge of often being the best option but needing a decrease in price to be fully profitable.

 **Focus On** Day 2

Outlook for carbon composites usage in Automotive

The use of composite materials in the automotive industry increases as new technologies and developments occur, but it also faces many challenges. Light-weighting for example, is a major factor in composite materials' success in this industry because it enables less fuel consumption. The mass production of CFRP is a consequential challenge for the automotive industry.



 Changing perspectives in composites design
10.00 am / 12.30 pm

KEY FOCUS

- ⊕ Time gain in composite design
- ⊕ Behavior checking and predictions



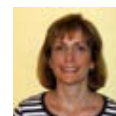
 CHAIRMEN



Byron Pipes (USA)
Distinguished Professor of Engineering
Purdue University



Roger Assaker (Luxembourg)
CEO
E-Xstream engineering



Rani Richardson (USA)
CATIA Composites Product Specialist
Dassault Systemes

 SPEAKERS

The Composites Design and Manufacturing HUB



Johnathan Goodsell (USA)
Visiting Assistant Professor
Purdue University

- ⊕ Opportunities for simulation tools in support of the vision of "certification by analysis" for composite structures
- ⊕ Best practices of composites simulation tools

Rapid Optimization of Composite Structure that Includes Detailed Analysis and Improved Producibility is Now Possible with Hypersizer® Software



Craig Collier (USA)
President
Collier Research Corporation

Best Practices for Composites Design



Shawn Ehrstein (USA)
Director CAD/CAM
NIAR University



Nathan Shipley (USA)
Assistant Director, CAD/CAM
Wichita University

Design for manufacture for airframe structure optimization



Olivier Munaux (France)
Project Manager
Coriolis Composites

- ⊕ What are the principal drivers leading to optimal design?
- ⊕ Stress, design and manufacture objectives

Use of simulation to assess producibility of composites structures during conceptual design



Goran Fernlund (Canada)
Director of Engineering
Convergent Manufacturing Technologies Inc



 Networking Coffee Break



12.30 Networking Lunch



From behaviour simulation to product development
2.00 pm / 5.00 pm

KEY FOCUS

- + Performance assessment
- + Product optimization via predictive simulation
- + Analytic decision making

 CHAIRMAN



Ronald Krueger
National Institute of Aerospace
Senior Research Scientist

 SPEAKERS

> In Partnership with


1 Application of Digimat Micromechanical Modeling to Short Fiber Filled Polymer Composites



Jorge Arinez (USA)
Group Manager in the Manufacturing Systems Research Lab
General Motors Global Research & Development

- + Micromechanics modeling software
- + Improve the accuracy of virtual prototyping simulations



2 Networking Coffee Break

3 Multi-Scale Modeling of Composites – A Paradigm shift in the optimal engineering of composites materials & structures



Roger Assaker (Luxembourg)
CEO
E-Xstream engineering

- + Nonlinear multi-scale modelling
- + Innovation and optimal design

2 Accelerated Insertion of Advanced Materials and Certification for Aircraft Structures and Repair



Waruna Seneviratne (USA)
Technical Director/Scientist
NIAR / Wichita University

- + Efficient and reliable allowable/screening programs
- + Optimizing structural performance

4 Design of Structural Joints using Fast-curing adhesives



Sana Elyas (USA)
Engineering Manager
Carbures



JECawards

5.00pm Awards Ceremony

4 Awards categories:

- Enabling Technologies
- Innovative Application
- Academic Achievement
- Student Award

An International Recognition from the Global Composite Community

There are multiple benefits for the innovations that are chosen.



JEC composites circle

5.30pm Simulation Composites Circle

ONLY BY INVITATION

> In Partnership with



Meet and discuss with the leading international experts from the Simulation sector. During this exclusive networking event, prestigious keynote speakers will present:

Introduction to the event



Roger Assaker (Luxembourg)
 CEO
 E-Xstream engineering



Breaking the Development Cost Curve by Using Analysis



S. Eric Cregger
 Senior Technical Fellow
 Structural Analysis
 Boeing



Simulation of Composites Materials & Structures (presenting the Composites Survey organised by NAFEMS)



Ronald Krueger
 National Institute of Aerospace
 Chair of NAFEMS Composites Working Group



The Latest Academic Advances in Composites Simulation



Byron Pipes (USA)
 Distinguished Professor
 of Engineering
 Purdue University



KEY FOCUS

- ⊕ Reducing fuel consumption by light-weighting
- ⊕ Innovative wing designs
- ⊕ Next generation jet-engines

⌚ Outlook for carbon composites usage in Aerospace
9.00 am / 11.30 am

 **CHAIRMAN**



John O'Connor (USA)
Director of Product & Market Strategy
Siemens PLM Software

 **SPEAKERS**

1 Composites manufacturing simulation chain for high performances components



Mathilde Chabin (France)
Composites Business Development & Product Marketing Manager
ESI Group

- ⊕ Prevent defects upfront in the development process
- ⊕ Optimize manufacturing process (time and cost)
- ⊕ Improve product quality

4 Composites Testing 101: Requirements, Options, and Sources Session



Andrew DeWolfe
Account Director
Admet

- ⊕ Outlining the basics of composites materials testing
- ⊕ Identifying the most critical required test specs
- ⊕ In-house versus external composites testing

2 Composite Aerostructure Development in the High Performance Enterprise



John O'Connor (USA)
Director of Product & Market Strategy
Siemens PLM Software

- ⊕ Reducing cost and weight of composite aerostructures
- ⊕ Composite design and manufacturing solutions



Uday Vaidya (USA)
Professor and Associate chair
University of Alabama at Birmingham

5 Advanced Tooling for Carbon Composites in Aerospace



Bob Vale (USA)
Composites Manufacturing Technical Engineer
AIP Aerospace

- ⊕ Design Requirements and Customer Inputs
- ⊕ Advanced Tooling Selection Criteria
- ⊕ Composite Tool Design and Fabrication Methodologies
- ⊕ Invar and Other Metal Tooling Methodologies

3 New generation of Aircraft Composite fuselage – Development of 3D High thermoplastic molding compound structural part to challenges metallic application



Vincent Labatut (France)
R&D - Engineer
Aerolia



James Myers (UK)
R&D - Head of Department
Greene Tweed & Co

- ⊕ Composite 3D Structural Parts
- ⊕ XYCOMP® DLF molding compound technology overview
- ⊕ AEROLIA & GREENE, TWEED R&T project



⌚ Networking Coffee Break



11.30am Networking Lunch



Outlook for carbon composites usage in Automotive

1.00 pm / 4.30 pm

KEY FOCUS

- ⊕ Nano-composites
- ⊕ Lightweight designs
- ⊕ What are the new opportunities of the composite market?

> Partnership



Peter Middendorf (USA)
Professor
University Stuttgart



Klaus Drechsler (Germany)
Professor
TU Munich (LCC)

SPEAKERS

1 ARENA2036 - Lightweight design for future automotive production



Peter Middendorf (Germany)
Professor
University Stuttgart

- ⊕ Prevent defects upfront in the development process
- ⊕ Optimize manufacturing process (time and cost)
- ⊕ Improve product quality

2 Tufted composites and nanocomposites for auto applications



Antonio Miravete (USA)
Research Scientist
MIT

- ⊕ Reducing cost and weight of composite aerostructures
- ⊕ Composite design and manufacturing solutions

3 Tailored Fiber Placement LFT-D – Endless Fiber Reinforced Hybrid Composites – Flexible and economical process technology for structural applications



Louis Kaptur (Canada)
Process Engineer Researcher
Dieffenbacher North Americas

- ⊕ Flexible and economical process technology for structural applications
- ⊕ Material and Process combination for future automotive applications
- ⊕ Integrated process chains and automation technology
- ⊕ Application examples

4 Development of an Eco-friendly final consolidation step using Thermoplastic Fiber Placement



Dr. Elisabeth Ladstätter (Germany)
Deputy Head of the Chair for Carbon
TU Munich (LCC)



Klaus Drechsler (Germany)
Professor
TU Munich (LCC)

Efficient and reliable allowable/screening programs
 Optimizing structural performance

5 Advanced composite materials for the Automotive industry: Manufacturing challenges & opportunities



Jorge Arinez (USA)
Group Manager in the Manufacturing Systems Research Lab
GM Global Research & Development

- ⊕ Mass production of CFRP as a challenge for the automotive industry
- ⊕ Future process and material concepts
- ⊕ Design approaches for advanced automotive composite applications



Networking Coffee Break



JEC academic zone

This village gathers universities that have an aptitude for: research, training, innovation in the fields of composites materials.

Our long-lasting partnerships with Universities allow them to present their research during JEC conferences, participate with a booth and present their Technical Posters on JEC events. JEC Academy gives the opportunity to academics to take part in JEC events in order to foster their knowledge, meet potential employers and therefore develop their network.



Some of the participating universities:

- IYRS SCHOOL OF TECHNOLOGY & TRADES
- WICHITA STATE UNIVERSITY
- UNIVERSITY OF MASSACHUSETTS- DARTMOUTH
- UNIVERSITY OF ALABAMA AT BIRMINGHAM
- PURDUE UNIVERSITY

JEC technical posters



The Technical Posters Sessions highlights the virtuous circle between academic research and industrial fields.

Gathering the world's largest industrial players and high-tech research centers in a dedicated area, these sessions are the opportunity to spot new talent as well as advanced composite materials applications.

For more information, please contact **Antoine Morel**

 (morel@jeccomposites.com)

JEC live demo

Virtual Reality by ESI Group

ESI Group will demonstrate with IC.IDO the advantages of Virtual Reality for efficient decision making within Virtual Product Engineering. Indeed, you will have a chance to experience live how major companies from the manufacturing industry (aerospace, automotive, heavy industry, energy) use IC.IDO to perform collaborative and immersive design reviews, to evaluate and optimize assembly and disassembly sequences, to verify resources and tooling for both manufacture and maintenance, to support documentation and workflow animation/training.



To organize a live demo (groups: up to 10 people) of IC.IDO during JEC Americas 2014 in Boston, please get in touch with mathilde.chabin@esi-group.com Our experts look forward to meeting you.

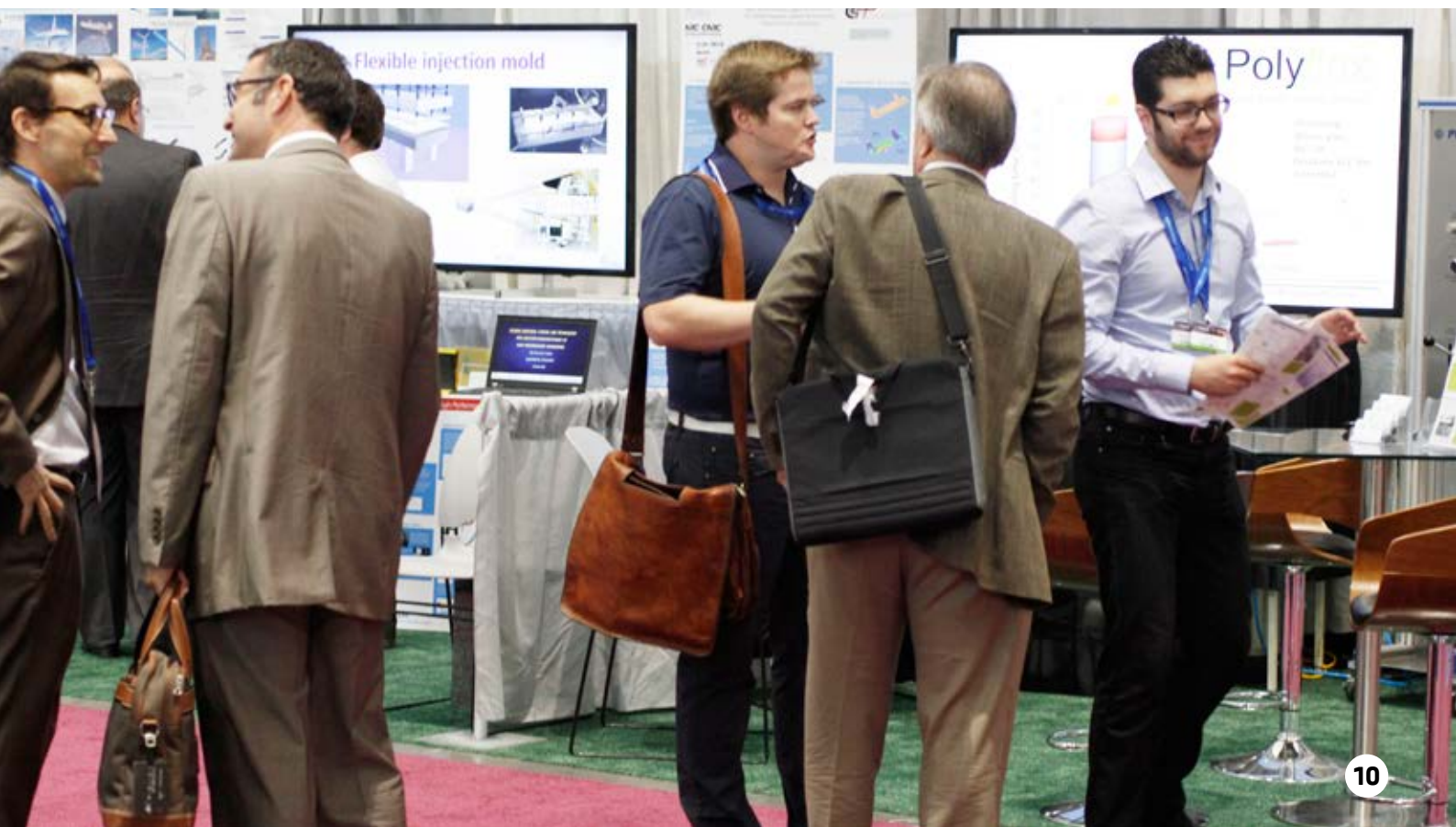
Exhibitors and Speakers have already confirmed their participation

ADMET
AEROLIA
AIP
BOEING
CHOMARAT
CONVERGENT
DASSAULT SYSTEMES

DIEFFENBACHER
ESI-GROUP
E-XSTREAM ENGINEERING
GENERAL MOTORS
GREENE TWEED & CO
HENKEL
LAMBIENT

MIT
NAFEMS
SIEMENS PLM
SYNASIA
TUM
UNIVERSITY OF STUTTGART
AND MORE...

For more information, please contact **Thomas LEPRETRE**  (lepretre@jeccomposites.com)



Pricing and Registration

Delegates Register today to benefit from our special online offer:	2 Days Pass	1-Day Pass Tuesday 28th October	1-Day Pass Wednesday 29th October
Online Offer	\$680	\$350	\$350
Onsite Rate	\$748		
All sessions (Tuesday & Wednesday)	X		
Tuesday's sessions		X	
Wednesday's sessions			X
Academic Zone	X	X	X
Table-Tops	X	X	X
Live Demo	X	X	X
Technical Posters	X	X	X
Award Ceremony	X	X	
Lunch & Coffee breaks	X	X	X
Proceedings	X		

Please note that there will be a single rate onsite: \$748 for 2 days conferences
Special prices for Academics: starting from \$175 for a 1 day pass
Free for Academic Zone' participants

Register:

www.jecamericas-boston-badges.com



Table Tops

Table-Top is a cost effective way to brand your company to a targeted audience of composite professionals.

DISCOVERY OFFER

- Package offer
- Attractive price

Package Price Participation : € 1,455

US\$ 2.000 (Estimated rate on March 6th 2014)

(incl. Conferences Pack - 1 Communication Package - 1 Table Top)

→ Table Top Description

- 6' x 8' booth with pipe and drape
- Standard identification one-line sign (7" x 44")
- Furniture including a draped table, 2 chairs and 1 wastebasket



→ The JEC package of Services

Benefits of an exceptional area in the hall with many advantages:

- Pre-event promotion: in all JEC media
- Conferences Pack, giving access to all the conferences
- On site promotion: your company will be listed in the Program distributed to each delegate and on the event signage

DISCOVERY OFFER

- Package offer
- Attractive price

→ Registration Form



With this completed document sent to :

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JECamericas

Conferences, Table-Tops and Networking

BOSTON OCTOBER 28, 29, 2014

Your company

Company

Name

First Name

Position

Address

State

Zip code

Town

Country

Phone number*

Fax number*

E-mail

Website

Legal Shape

* please indicate country code. example : +33 (0)1 58 36 15 01


Down payment

- ▶ 100% of the total amount deposit is required upon the registration. Your registration will not be taken into account without the 100% down payment and signed application form.

▶ Total amount: € 1.455

US\$ 2,000 (Estimated rate on March 6th 2014)

Payment by credit card to JEC:

Mastercard 

Visa 

Holder's name

Card number

Expiry date

/

3 last digits

6,25% Local sales tax for all exhibitors will be added on the final invoice according to the article 259-1° of the Tax Code. 19,6% VAT will be added on the final invoice for French exhibitors only.

The signature indicates that the rules and regulations have been read, and binds the company to all JEC rules, regulations and terms. A booth will not be reserved or assigned to any company without a signed application form.

Payment by bank transfer to JEC:

Beneficiary Name: JOURNALS AND EXHIBITIONS JEC

Beneficiary Address: 25 Boulevard de l'Amiral Bruix
75116 Paris – FRANCE

Bank Name: BANQUE PALATINE

Bank Address: SUCCURSALE MATIGNON

12 Avenue Matignon

75008 Paris – FRANCE

Bank Account: 40978 / 00022 / 0357315V001 / 72

BIC: BSPFFRPPXXX

IBAN: FR63 / 4097 / 8000 / 2203 / 5731 / 5V00 / 172

Place:

Date:

Signature and company stamp: