

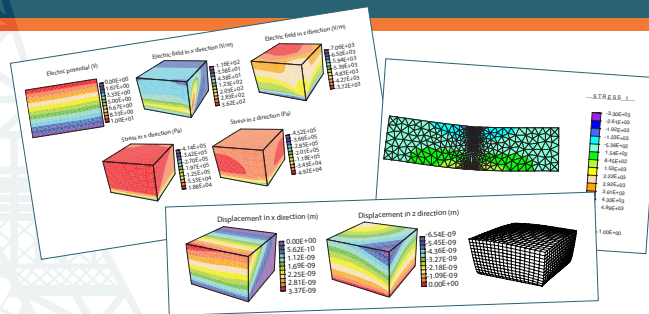
CILAMCE 2018

November 11-14, 2018

Paris/Compiègne, France

XXXIX Ibero-Latin American Congress on

Computational Methods in Engineering



cilamce2018.rbv.utc.fr



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INTRODUCTION

The CILAMCE 2018 – XXXIX Ibero-Latin American Congress on Computational Methods in Engineering will take place in Paris/Compiègne, France, from 11 to 14 November. CILAMCE is an annual conference – promoted by the Brazilian Association of Computational Methods in Engineering (ABMEC) – intended as an international forum for communicating recent developments of numerical methods in several engineering areas.

Since 1977, when it was founded by the emerging Brazilian community of computational mechanics under the leadership of the late Prof. Agustín Ferrante, CILAMCE has become the main opportunity for engineers, students, researchers and other professionals mainly from Brazil and Latin-America to discuss and explore the state of the art of computational methods.

CILAMCE is a multidisciplinary event: scientists and engineers from all over the world are encouraged to attend the conference. The technical program will include six invited plenary speakers and a large number of mini-symposia with contributed papers.

As it already has become a tradition, there will be a special competition – the Agustín Ferrante Award – to acknowledge undergraduate students who show potential for outstanding scientific achievements.

At this time it is hosted by the Sorbonne universités, Université de technologie de Compiègne.

We look forward to welcoming you to Paris/Compiègne at CILAMCE 2018.

Prof. Adnan Ibrahimbegović Chairman CILAMCE 2018

Prof. Paulo M. Pimenta Co-chairmen CILAMCE 2018

PRACTICAL INFORMATION

1. ORGANIZATION

Chairpersons

- Pr Adnan IBRAHIMBEGOVIC
- Pr Paulo M. PIMENTA

Organizing committee

- Dr. Delphine Brancherie
- Ms. Brigitte Duch
- Mr. Pablo Moreno Navarro
- Mr. Ivan Rukavina
- Prof. Florian de Vuyst
- Prof. Eduardo M.B. Campello
- Ms. Abir Boujelben
- Mr. Xuan-Nam Do
- Ms. Simona Dobrilla
- Ms. Sara Grbcic
- Ms. Emina Hadzalic
- Mr. Emir Karavelic
- Ms. Rosa Adela Mejia
- Mr. Ismar Imamovic
- Ms. Tea Rukavina

2. CONTACTS

Conference contact:

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If you need a taxi ride, you can contact :

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3. OVERALL SCHEDULE

On November 12 and 13, the conference will take place at Université de technologie de Compiègne, 66 rue de Landshut 60200 Compiègne.

Conference rooms are located in Centre de Transfert (CT), Centre d'Innovation (CI) and building Blaise Pascal (BP) (see maps on pages 30 and 31).

Lunches and coffee breaks will be served in salle Ariane, Centre de Transfert and at Centre d'Innovation.

Monday, November 12

8:30 9:30	Registrations	Centre d'innovation
9:30 10:00	Opening ceremony	Amphi Colcombet - CT
10:00 10:30	Keynote: A. Ibrahimbegovic	
10:30 11:00	Coffee break	Lunch areas: CT / CI
11:00 12:30	Parallel sessions MS13, MS10, MS9, MS24	CT / CI / BP
12:30 13:30	Lunch break	Lunch areas: CT / CI
13:30 15:00	Parallel sessions MS15, MS2, MS11, MS3, MS4	CT / CI / BP
15:00 15:30	Coffee break	Lunch areas: CT / CI
15:30 17:00	Parallel sessions MS25, MS2, MS11, MS1, MS5, MS6, MS21, MS28, MS8	CT / CI / BP
18:00 19:00	Welcome speech	Compiègne City Hall
19:00 22:00	Welcome reception	Bistrot de Flandre Table d'Élisa

Tuesday, November 13

9:30 10:00	Keynote: E. Campello	Amphi Colcombet
10:00 10:30	Keynote: F. de Vuyst	
10:30 11:00	Coffee break	Lunch areas: CT / CI
11:00 12:30	Parallel sessions MS22, MS12, MS14, MS23, MS20, MS29	CT / CI / BP
12:30 13:30	Lunch break	Lunch areas: CT / CI
13:30 15:00	Parallel sessions MS22, MS26, MS14, MS16	CT / CI / BP
15:00 15:30	Coffee break	Lunch areas: CT / CI
15:30 17:00	Parallel sessions MS22, MS26, MS27, MS16	CT / CI / BP

Wednesday, November 14

On November 14, the conference will take place in Paris, at Institut Universitaire de France / Ministère de l'enseignement supérieur, 25 rue de la Montagne Sainte Genevière, 75005 Paris.

13:00 14:00	Registration for conference banquet
14:00 14:45	Plenary lecture: H.G. Matthies
14:45 15:30	Plenary lecture: Y. Maday
15:30 16:00	<i>Coffee break</i>
16:00 16:45	Plenary lecture: P.M. Pimenta
16:45 17:30	Plenary lecture: J. Yvonnet
17:30 19:30	Guided Tour (Notre Dame, Louvre Museum ...)
19:45 23:00	Banquet CILAMCE 2018, Bateaux Mouches Departure Pont de l'Alma, Paris

3.1. List of minisymposia

MS1	Computational Methods for Image Processing and Analysis
MS2	Advanced Analysis in Steel and Steel-Concrete Composite Structures
MS3	Topology Optimization of Multifunctional Materials, Fluids and Structures
MS4	Modeling, Simulation and Control of Aerospace and Naval Structures Dynamics
MS5	Modelling, Design and Additive Manufacturing of Vibro-Acoustic Metamaterials
MS6	Boundary Element and Mesh-Reduced Methods
MS7	Numerical Modelling in Support to the Assessment and Strengthening of Existing Structures
MS8	Engineering Simulations using Finite Difference Methods
MS9	Structural Reliability Methods and Design Optimization Under Uncertainties
MS10	Analysis and Design of Offshore Systems
MS11	Numerical Simulation of Wave Propagation
MS12	Advances in the Lattice-Boltzmann Method in Computational Fluid Dynamics
MS13	Computational Fracture Mechanics (CFM)
MS14	Data Science Approaches and Applications
MS15	Health Monitoring and Numerical Modeling of Structures
MS16	Numerical Methods Applied to Structural Design of Civil Construction
MS17	Advances on the Design and Optimization of Membranes, Gridshells and Bending-active Structures
MS18	Computational Plasticity: Monotonic and Cyclic Applications
MS19	Analysis of Stability and Deformation of Evaporites Cavity
MS20	On the Numerical Simulation of Discrete Fracture Networks
MS21	Ageing and material pathologies towards civil engineering structural response
MS22	Advances in Solid and Structural Mechanics
MS23	Advances Thermal Sciences and Heat Propagation Problems
MS24	Modern Industrial Applications
MS25	Computational Modelling of Damage in Materials, Solids and Structures
MS26	Fluid-Structure Interaction
MS27	Reduced Order Modeling in Computational Mechanics
MS28	Uncertainty and Model Validation
MS29	Experimental investigation of wave propagation in light weight structures undergoing flexural vibration

3.2. Detailed program

Monday, November 12, 2018
(KL=30 min keynote lecture, L=15 min lecture)

8:30 - 9:30

Registration Centre de Transfert / Centre d'Innovation

9:30 - 10:00

CILAMCE 2018 Opening Ceremony
Room: Amphi Colcombet
Chair: A. Ibrahimbegovic

10:00 - 10:30

Keynote CSMA
Chair: P. Pimenta

KL: A. Ibrahimbegovic

ENGINEERING STRUCTURES INTEGRITY AND DURABILITY VALIDATION

10:30 -11:00

Coffee-Break
LUNCH AREA

11:00 –12:30

Session M1 - Room Amphi Centre d'Innovation (CI)
MS13 - Computational Fracture Mechanics (CFM)
Chair: Gilberto Gomes, Francisco Evangelista Jr.

L : Thiago Arnaud Abreu De Oliveira, Gilberto Gomes, Francisco Evangelista Junior, Alvaro Martins Delgado Neto

MULTISCALE ANALYSIS OF MULTIPLE CRACKS IN AIRCRAFT FUSELAGE

L : Linda Gesenhues, Jose J. Camata, Adriano M.A. Cortes, Fernando A. Rochinha, Alvaro L.G.A. Coutinho

INFLUENCE OF PRECONDITIONING ON FINITE ELEMENT SIMULATION OF COLUMN COLLAPSE USING A WELL-POSED $\mu(I)$ -RHEOLOGY

L : Emir Karavelic, Adnan Ibrahimbegovic

MULTI-SURFACE PLASTICITY MODEL WITH SOFTENING FOR SOLIDS WITH MARKED DIFFERENCE OF FAILURE

L : Xuan Nam Do, Adnan Ibrahimbegovic

CRACK PROPAGATION IN DYNAMICS BY EMBEDDED STRONG DISCONTINUITY APPROACH AND ENERGY BALANCE IN SIMULATIONS

L : Thiago Arnaud Abreu De Oliveira, Gilberto Gomes, Francisco Evangelista Junior, Alvaro Martins Delgado Neto

EVALUATION OF CRACKED FUSELAGE SUBJECT TO CONTACT MECHANICS

L : Matheus Lisboa, Carla Anflor

NUMERICAL ANALYSIS OF ALUMINUM PLANE PLATES WITH TWO COPLANAR HOLE-EDGE CRACKS UTILIZING DUAL BOUNDARY ELEMENTS METHOD

11:00 - 12:30

Session M1 - Room RP6 (CT)

MS10 - Analysis and Design of Offshore Systems

Chair: Bruno Martins Jacovazzo, Bruno da Fonseca Monteiro, Juliana Souza Baioco, Mauro Henrique Alves de Lima Junior

L : Andre Teofilo Beck

UNCERTAINTY QUANTIFICATION & RISK ANALYSIS IN ENGINEERING, WITH APPLICATIONS TO OIL & GAS EXPLORATION

L : Giovanni Aiosa Do Amaral, Estevan Covari Isaak, Alfredo Gay Neto, Guilherme Rosa Franzini

A NUMERICAL ASSESSMENT OF STIFFNESS ASSOCIATED WITH A SINGLE MOORING LINE: THE EFFECT OF SEA CURRENT AND APPLICATION FOR A FLOATING OFFSHORE WIND TURBINE

L : Bruno Monteiro, Bruno Jacovazzo, Carl Albrecht, Breno Jacob

TOWARDS A METHODOLOGY FOR THE OPTIMAL DESIGN OF A GROUP OF RISERS IN LAZY-WAVE CONFIGURATION

L : Tiago Sten Freitas, Fabricio Nogueira Correa, Breno Pinheiro Jacob

NUMERICAL SIMULATION OF THE DESCENT OF CASING PIPES OF OFFSHORE OIL WELLS

L : Adriana Silva, Lineu Pedroso, Luiz Oliveira

ESTUDO NUMERICO DO COMPORTAMENTO DINAMICO DE UMA TORRE EOLICA VIA CFD

L : Rao Quintas, Fabricio Correa, Carl Albrecht

PARAMETRIC STUDY TO OPTIMIZE THE HYDRODYNAMIC EFFICIENCY OF A SUBMERGED PRESSURE DIFFERENTIAL WAVE ENERGY CONVERTER

11:00 -12:30

Session M1 - Room RP5 (CT)

MS9 - Structural Reliability Methods and Design Optimization Under Uncertainties

Chair: André T. Beck, Rafael Holdorf Lopes, Wellison Gomes

L : Claudio Roberto Avila Da Silva Junior, Pedro Danizete Damazio

BUBNOV GALERKIN METHOD APPLIED EULER BERNOULLI BEAM STOCHASTIC BENDING

L : Nikolaos Limnios, Adnan Ibrahimbegovic

STOCHASTIC APPROXIMATION TO HETEROGENEOUS DYNAMIC SYSTEMS

L : Hélio L. Simonetti, Valério S. Almeida, Francisco de Assis Das Neves, Mauricio R.R. Ribeiro

RELIABILITY ANALYSIS OF STRUCTURES USING FORM, FOSM, AFOSM, SORM, MONTE CARLO METHOD AND A MODIFIED AFOSM

L : Eduardo Naccache, Valerio Almeida

RELIABILITY ANALYSIS OF A CONCRETE FRAME

L : Roberto Squarcio, Claudio Roberto Avila

UNCERTAINTY EVALUATION IN EULER-BERNOULLI AND TIMOSHENKO BENDING STATICS PROBLEMS

L : André Teófilo Beck, Rodolfo Tessari, Henrique Kroetz

PROBABILISTIC PROGRESSIVE COLLAPSE OF A TRUSS: A BENCHMARK EXAMPLE OF SYSTEM RBDO AND RISK-BASED OPTIMIZATION

11:00 -12:30

Session M1 - Room RP4 (CT)

MS24 - Modern Industrial Applications

Chair : Eduardo M. B. Campello, Jean-Michel Bergheau

L : Yassine Saadlaoui, Eric Feulvarch, Alexandre Delache, Jean-Baptiste Leblond, Jean- Michel Bergheau

A PRAGMATIC STRATEGY FOR THE NUMERICAL SIMULATION OF THE FLUID FLOW DURING WELDING PROCESSES

L : Pablo Moreno-Navarro, Adnan Ibrahimbegovic, Alejandro Ospina

ELECTROSTATIC AND MAGNETOSTATIC DUAL FORMULATIONS AND FINITE ELEMENT IMPLEMENTATION BASED ON DIFFERENTIAL FORMS

L : Eduardo M. B. Campello

EFFECT OF PARTICLE SPIN ON THE SPATIO-THERMAL FIRE HAZARD DISTRIBUTION OF INCANDESCENT FRAGMENTS

L : Anaximandro Souza, Carlos Magno, Luis Jorge de Mesquita

ANALYSIS AND STRUCTURAL CORRECTION OF A BELT CONVEYOR TR-315K-03 FROM VALE COMPANY IN BRAZIL USING COMPUTATIONAL MECHANICS TECHNIQUES

L : Anderson Melchtiades Vasconcelos Da Silva, Mariana Julie Do Nascimento Santos, Antonio Gilson Barbosa de Lima

DRYING OF CERAMIC BLOCKS IN AN INDUSTRIAL TUNNEL DRYER: MODELING AND SIMULATION

L : Chawki Tahri, Christophe Berton, Eric Feulvarch, Helmut Klocker, Jean-Michel Bergheau

NUMERICAL MODELING OF THE BRAZE WELDED ASSEMBLY OF A COPPER COATED WITH A NICKEL-BASED ALLOY AND STEEL

12:30 -13:30

Lunch-Break

LUNCH AREA

13:30 -14:45

Session M2 - Room Amphi Centre d’Innovation (CI)

MS15 - Health Monitoring and Numerical Modeling of Structures

Chair: Leandro Mouta Trautwein, Luiz Carlos de Almeida, Gustavo Henrique Siqueira, Diogo Rodrigo Ribeiro, Isaias Vizotto

L : Daniel Soares, Alexandre Cury

EVALUATION OF TEMPERATURE AND DAMAGE OVER STRUCTURAL NATURAL FREQUENCIES

L : Jorge Leite, Diogo Ribeiro, Nuno Pinto, Rui Calçada

CONTINUOUS MONITORING OF THE DYNAMIC BEHAVIOR OF A HIGH-RISE TELECOMMUNICATIONS TOWER

L : Juliana Santos, Marcus Moraes, Erwin Palechor, Marcela Machado, Ramon Silva, Luciano Bezerra

DAMAGE DETECTION IN BEAMS USING AN ADDITIONAL MOBILE MASS: A NUMERICAL VALIDATION

L : Renan Rocha Ribeiro, Rodrigo Lameiras

EVALUATION OF LOW-COST MEMS ACCELEROMETERS PERFORMANCE FOR STRUCTURAL HEALTH MONITORING MODAL ANALYSIS

L : Rhara Cardoso, Alexandre Cury, Flavio Barbosa

UNSUPERVISED REAL-TIME SHM TECHNIQUE FOR NOVELTY DETECTION BASED ON SINGLE-VALUED FEATURES

14:45 -15:00

Session M2 - Room Amphi Centre d’Innovation (CI)

MS7 - Numerical modelling in support to the assessment and strengthening of existing structures

Chair: João da Costa Pantoja, Humberto Varum, Enrico Spacone

L : Norberto Dominguez, Arturo Suarez, Juan-Edmundo Mayorga

NUMERICAL SIMULATION OF A HISTORICAL MILITARY BUILDING PLACED IN MEXICO CITY SUBJECTED TO EARCHQUAKE AND SOIL SUBSIDIENCE EFFECTS

13:30 - 15:00

Session M2 - Room RP6 (CT)

MS2 - Advanced Analysis of Steel and Steel-Concrete Composite Structures

Chair: José Guilherme, Ricardo Azoubel da Mota Silveira

L : Ígor J.M. Lemes, Luís E.S. Dias, Ricardo A.M. Silveira, Amilton R. Silva and Andréa

INFLUENCE OF PARTIAL SHEAR CONNECTION OF STEEL-CONCRETE COMPOSITE BEAM IN THE MULTI-STOREY BUILDINGS ANALYSIS

L : Ismar Imamovic, Adnan Ibrahimbegovic, Esad Mesic

EXPERIMENTAL TESTING AND NUMERICAL RESEARCH ON STRUCTURAL CONNECTION BEHAVIOR UNDER CYCLIC LOAD

L : Tiago Zampaolo, Ernesto Massaroppi Jr., Miguel Abambres, Tiago Ribeiro

COLLAPSE OF PARABOLICALLY TAPERED CHS STEEL COLUMNS: FINITE ELEMENT MODEL VALIDATION

L : Rosicley Rosa, Juliano Neto

NUMERICAL ANALYSIS OF THE MECHANICAL BEHAVIOR OF WELDED CONNECTIONS BETWEEN SQUARE HOLLOWCORE SECTION COLUMN AND I-BEAM

L : Mariana Souza, Tulio Melo

COMPARATIVE ANALYSIS OF THE PROGRESSIVE COLLAPSE IN A MULTISTOREY STEEL BUILDING

L : Djemerson Mateus de Andrade, Geraldo Donizetti de Paula, Rovadavia Aline de Jesus Ribas

COMPARATIVO DE DIMENSIONAMNETO DOS SISTEMAS ESTRUTURAIS SLIM FLOR E STEEL DECK

13:30 - 15:00

Session M3 - Room RP5 (CT)

MS11 - Numerical Simulation of Wave Propagation

Chair: Alvaro G. Coutinho, Régis Cottureau, Josep de la Puente, Dimitri Komatitsch

L : José Alves, Alvaro Coutinho, Renato Elias, Carlos Silva, Leandro Gazoni, Marcus Casagrande, Ricardo Borges

HIGH PERFORMANCE COMPUTING FOR ASSESSMENT OF THE INFLUENCE OF TOPOGRAPHIC FACTOR IN SEISMIC AMPLIFICATION IN OIL FIELDS

L : Axel Modave, Xavier Antoine, Christophe Geuzaine

AN EFFICIENT DOMAIN DECOMPOSITION METHOD WITH CROSS-POINT TREATMENT FOR HELMHOLTZ PROBLEMS

L : Dimitri Komatitsch, Simon Bernard, Vadim Monteiller, Philippe Lasaygues, Regine Guillermin

ULTRASONIC COMPUTED TOMOGRAPHY USING FULL-WAVEFORM INVERSION FOR QUANTITATIVE IMAGING OF BONES IN THE VISCOELASTIC CASE

L : David Oliveira Fonseca, Raquel Jahara Lobosco, Graziela Maria Faquim Jannuzzi, Necesio Gomes Costa

COMPARATIVE ANALYSIS OF TURBULENCE MODELS IN HYDRAULIC JUMPS

L : Carlos Barbosa, Schirley Jorge, Raphael Vilela, Luciano Leite, Jose Camata, Alvaro Coutinho

IMPROVING PERFORMANCE OF FINITE DIFFERENCE 3D HETEROGENEOUS ACOUSTIC WAVE EQUATION SIMULATIONS

13:30 - 14:45

Session M2 - Room RP4 (CT)

MS3 - Topology Optimization of Multifunctional Materials, Fluids and Structures

Chair: Antonio André Novotny, Anderson Pereira, Emílio Carlos Nelli Silva, Eduardo Fancello, Glaucio H. Paulino, Jan Sokolowski

L : Andre Luis Ferreira Da Silva, Ruben Andres Salas, Emilio Carlos Nelli Silva

A FIBER OPTIMIZATION METHOD BASED ON NORMAL DISTRIBUTION FUNCTION FOR HYPERELASTIC MATERIALS

L : Valerio S. Almeida, Helio L Simonetti, Edson B. Ferreira

STRUT AND TIE ANALYSIS USING TOPOLOGICAL OPTIMIZATION WITH 3D TRUSS FINITE ELEMENTS

L : Adriano Ribeiro Marinho, Helio Luiz Simonetti, Valerio S. Almeida, Isabel Jesus, Ramiro Barbosa

TOPOLOGICAL OPTIMIZATION APPLIED IN FLEXIBLE ROBOTIC ARMS – BY SESO

L : Aldemon Bonifacio, Julia Mendes, Michele Farage, Flavio Barbosa, Ciro Barbosa, Anne-Lise Beaucour

APPLICATION OF SUPPORT VECTOR MACHINE AND FINITE ELEMENT METHOD IN THE PREDICTIONS OF MECHANICAL PROPERTIES OF LIGHTWEIGHT AGGREGATE CONCRETE

L : Aldemon Bonifacio, Julia Mendes, Michele Farage, Flavio Barbosa, Ciro Barbosa, Anne-Lise Beaucour

INFLUENCE OF LIGHTWEIGHT AGGREGATE'S SHAPES ON THE NUMERICAL EVALUATION OF LIGHTWEIGHT AGGREGATE CONCRETE

14:45 - 15:00

Session M2 - Room RP4 (CT)

MS17 - Advances on Design Optimization of Membranes, Gridshells and Active Structures

Chair: Ruy Marcelo de Oliveira Pauletti, Romuald Tarczewski

L : Ruy Marcelo Pauletti

AN OUTLINE OF SATS - A SYSTEM FOR THE ANALYSIS OF TAUT STRUCTURES

13:30 - 15:00

Session M2 - Room RP3 (CT)

MS4 - Modeling, Simulation and Control of Aerospace and Naval Structures Dynamics

Chair: Reyolando M.L.R.F. Brasil, Andre Fenili, Luiz Carlos Gadelha

L : Luiz Souza

APPLICATION OF A MULTIOBJECTIVE OPTIMIZATION PARETO APPROACH TO DESIGN THE SDRE CONTROLLER FOR A RIGID-FLEXIBLE SATELLITE

L : Reyolando Brasil

A NONLINEAR DYNAMIC MODEL OF A NON-IDEAL MOTOR SUPPORT STRUCTURE

L : Tiago Siqueira, Humberto Coda

MODELLING OF ACTUATED 3D MECHANISMS BY A DYNAMIC GEOMETRIC NONLINEAR FEM FORMULATION WITH APPLICATIONS IN AEROSPACE STRUCTURES

L : Adela Rosa Mejia Nava, Adnan Ibrahimbegovic, Rogelio Lozano-Leal

VIBRATION CONTROL BY IMPLICIT DISSIPATIVE SCHEME IN NONLINEAR DYNAMICS 2D BEAM STRUCTURES

L : Claudio Roberto Avila Da Silva Junior, Pedro Danizete Damazio

SOME RESULTS ABOUT EXISTENCE AND UNIQUENESS SOLUTION FOR STOCHASTIC BENDING BEAM

15:00 - 15:30

**Coffee-Break
LUNCH AREA**

15:30 - 16:30

Session M3 - Room Amphi Centre d’Innovation (CI)
MS25 - Computational Modelling of Damage in Materials, Solids and Structures
Chair: Delphine Brancherie, Alain Rassineux

L : Fangtao Yang, Alain Rassineux, Carl Labergere, Khemais Saanouni
 3D DUCTILE CRACK SIMULATION BASED ON H-ADAPTIVE METHODOLOGY

L : Jorge Nunez Ramirez, Antoine Hurman and Frederic Laurin
 SIMULATING CRACK FRICTION INDUCED HYSTERESIS IN CERAMIC MATRIX COMPOSITES (CMC)

L : Tea Rukavina, Adnan Ibrahimbegovic, Ivica Kozar
 MODELING COMPLETE FIBER PULL-OUT IN FIBER-REINFORCED COMPOSITES

L : Jeremie Bude and Delphine Brancherie
 THE STRONG DISCONTINUITY APPROACH FOR DUCTILE FAILURE WITH DAMAGE

16:30 - 16:45

Session M3 - Room Amphi Centre d’Innovation (CI)
MS18 - Computational Plasticity: Monotonic and Cyclic Applications
Chair: Lucival Malcher, Rodrigue Desmorat

L : Lucas Araujo, Raniere Neves, Lucival Malcher
 ELASTOPLASTICITY DESCRIPTION OF MATERIALS USING A THREE-DIMENSIONAL MULTISCALE MODEL

15:30 - 17:00

Session M3 - Room RP6 (CT)
MS2 - Advanced Analysis of Steel and Steel-Concrete Composite Structures
Chair: José Guilherme, Ricardo Azoubel da Mota Silveira

L : Jose Guilherme Santos Da Silva, Leonardo Souza Bastos, Carolina Sanchez Guerrero
 DYNAMIC ANALYSIS OF BUILDINGS CONSIDERING THE EFFECT OF MASONRY INFILLS

L : Jose Guilherme Santos Da Silva, Alan Barile, Leonardo Souza Bastos
 HUMAN COMFORT ASSESSMENT OF BUILDINGS SUBJECTED TO NONDETERMINISTIC WIND LOADINGS

L : Ricardo Silveira, Lidiane de Deus, Jessica Silva and Igor Lemes

ADVANCED INELASTIC ANALYSIS OF STEEL ARCHES WITH TUBULAR CROSS SECTIONS

15:30 - 17:00

Session M3 - Room RP5 (CT)

MS11 - Numerical Simulation of Wave Propagation

Chair: Alvaro G. Coutinho, Régis Cottureau, Josep de la Puente, Dimitri Komatitsch

L : Régis Cottureau, Ruben Sevilla

INFLUENCE OF MATERIAL HETEROGENEITY ON THE STABILITY OF EXPLICIT HIGH-ORDER SPECTRAL ELEMENT METHODS

L : Faisal Amlani, Stephanie Chaillat, Adrien Loseille

ANISOTROPIC HIGH-ORDER ADAPTIVE BOUNDARY ELEMENT METHODS FOR 3D ACOUSTIC WAVE PROPAGATION

L : Victor Bicalho Civinelli de Almeida, Delfim Soares Jr.

ANALYSIS OF INTERACTING FLUID-SOLID COUPLED MODELS CONSIDERING AN EFFICIENT ADAPTIVE TIME DOMAIN FORMULATION

L : Octavio Castillo Reyes, Josep de La Puente, Jose Mara Cela

ELECTROMAGNETIC MODELING USING NEDELEC ELEMENTS OF HIGH-ORDER AND HPC

15:30 - 16:15

Session M3 - Room RP4 (CT)

MS1 - Computational Methods for Image Processing and Analysis

Chair: João Manuel R. S. Tavares, Alex F. de Araujo

L : Eliete Biasotto Hauser, Evandro Manica, Gianina Teribele Venturin, Samuel Greggio, Eduardo R. Zimmer, Wyllians Vendramini Borelli, Jaderson Costa Da Costa

PARAMETER ESTIMATION FOR KINETIC MODELING OF 18F-FDG IN POSITRON EMISSION TOMOGRAPHY (PET) IMAGE

L : Calebe Souza, Maria Clara Rameiro

COMPARATIVE STUDY IN RESULTS AND COMPUTATIONAL PERFORMANCE OF THE MAIN METHODS OF SOLUTION OF SPARSE AND SYMMETRIC LINEAR SYSTEMS THAT RESULT FROM FINITE ELEMENT METHOD

L : Thiago Fernandes, Paulo de Mattos Pimenta, Catia Silva

A MODEL TO SOLVE ROTATION PROBLEMS BETWEEN SHELLS

16:15 - 16:30

Session M3 - Room RP4 (CT)

MS28 - Uncertainty and Model Validation

Chair: Pierre Feissel

L : Pierre Feissel, Liqi Sui, Thierry Denoeux
A RANDOM SET BASED IDENTIFICATION STRATEGY

15:30 - 17:00

Session M1 - Room RP3 (CT)

MS5 - Modelling, Design and Additive Manufacturing of Vibro-Acoustic Metamaterials

Chair: José Maria Campos Dos Santos, Renato Pavanello, José Roberto de França Arruda

L : Gabriel Konda Rodrigues, Mara Martins Da Silva, Leopoldo Pisanelli Rodrigues de Oliveira
MODULAR MODELLING APPROACH FOR FDM PRINTED STRUCTURES AND PIEZO DISKS
FOR METAMATERIAL DESIGN

L : Douglas Roca Santo, Jean-Mathieu Mencik, Bin Tang, Paulo Jose Paupitz Goncalves, Michael John Brennan
ON THE DYNAMIC BEHAVIOR OF RODS AND BEAMS WITH NONLINEAR BOUNDARY
STIFFNESS

16:00 - 16:15

Session M3 - Room RP3 (CT)

MS8 - Engineering Simulations using Finite Difference Methods

Chair: Jan Vidar Grindheim

L : Breenda Lorrana Vieira Lima, Michell Macedo Alves
VIGA BIENGASTADA DE CONCRETO SOBRE BASE ELASTICA SUBMETIDA A CARREGA-
MENTO UNIFORMEMENTE DISTRIBUIDO: ANALISE NUMERICA VIA FTOOL E SAP2000

15:30 -17:00

Session M3 - Room RP1

MS6 - Boundary Element and Mesh-Reduced Methods

Chair: Francisco Célio de Araújo, Ney Augusto Dumont

L : Nasser Alkmim, Francisco Evanjelista Jr.
IMPLEMENTATION OF EXTENDED FINITE ELEMENT FOR WEAK DISCONTINUITIES USING
PYTHON

L : Gustavo Gontijo, Eder Albuquerque, Eugenio Fortaleza
REPRESENTATION OF A PRODUCTION WELL USING A SERIES OF POINT SINKS IN 2D BEM
SIMULATIONS

L : Wilber Velez, Thiago Araujo, Tiago Oliveira, Artur Portela
LOCAL MESHLESS METHOD WITH REDUCED INTEGRATION FOR HIGH IRREGULARITY
OF THE NODAL ARRANGEMENT

L : Felipe Tempel Stumpf, Rogerio Jose Marczak

ASSESSMENT OF NON-CONVENTIONAL CONSTRAINTS IMPOSED TO A HYPERELASTIC MODEL

16:30 -16:45

Session M3 - Room RP1

MS21 - Ageing and material pathologies towards civil engineering structural response

Chair : Julio Florez Lopez, Frédéric Ragueneau, Aref Kalilo Lima Kzam, André Jaomel Torii, Ivan Dário Gomez Araújo

L : Andreia H. A. Silva, Gonzalo L. Pita, Julio Florez-Lopez, Gustavo H. Siqueira, Thiago D. Santos, Karolinne O. Coelho, Ricardo A. Picon, Luiz C. M. Vieira Jr.

RISK ANALYSIS OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO INDUCED SEISMICITY USING LUMPED DAMAGE MECHANICS MODELING

18:00 - 19:00

HOTEL DE VILLE - Welcome by City Officials

19:00 - 22:00

Diner: Restaurants BISTROT DE FLANDRE & TABLE d'ÉLISA

Tuesday, November 13, 2018
(KL=30 min keynote lecture, L=15 min lecture)

9:30 - 10:30

Amphi Colcombet
Keynotes ABMEC & SMAI
Chair: F. de Vuyst, E. Campello

KL: E. Campello

A DISCRETE ELEMENT FORMULATION FOR THE MODELING OF GRANULAR AND PARTICULATE MATERIALS

KL: F. de Vuyst

MIXED DATA-DRIVEN/TIME INTEGRATOR KERNEL-BASED APPROACH FOR MANIFOLD LEARNING OF DYNAMICAL SYSTEMS

10:30 - 11:00

Coffee-Break
LUNCH AREA

11:00 - 12:30

Session T1 - Room Amphi Centre d'Innovation (CI)
MS22 - Advances in Solid and Structural Mechanics
Chair : Eduardo M. B. Campello, Paulo Pimenta

L : Henrique Ataide Nery De Castro Filho, Suzana Moreira Avila and José Luis Vital de Brito
SEISMIC ANALYSIS OF WIND TURBINE

L : Alfredo Gay Neto, Thiago Pereira

MODELING WHEEL-RAIL CONTACT INTERACTION AND VEHICLE DYNAMICS: OVERVIEW OF ONGOING DEVELOPMENTS AND NEW ACHIEVEMENTS

L : Anaximandro Souza, Leonardo Lisboa and Rodrigo Melo

NUMERICAL SIMULATION OF WIND ACTION ON SUPERSTRUCTURE OF A BRIDGE AND DYNAMIC RESPONSE RATE FOR DIFFERENT DECK GEOMETRIES

L : Sara Grbicic, Adnan Ibrahimbegovic, Gordan Jelenic

NUMERICAL ANALYSIS OF 3D MICROPOLAR BOUNDARY VALUE PROBLEMS

L : Catia Silva, Sascha Maassen, Nils Viebahn, Paulo de Mattos Pimenta, Jorg Schroder

CONNECTION BETWEEN BERNOULLI-EULER RODS AND KIRCHHOFF-LOVE SHELLS

L : Nasser Samir Alkmim, Fracisco Evangelista Jr.

IMPLEMENTATION OF EXTENDED FINITE ELEMENT FOR WEAK DISCONTINUITIES USING PYTHON

11:00 - 12:30

Session T1 - Room RP6 (CT)

MS12 - Advances in the Lattice-Boltzmann Method in Computational Fluid Dynamics

Chair: Bastien Chopard, Florian De Vuyst, François Dubois, Paulo C Philippi

L : Luiz Hegele, Keijo Mattila, Jonas Hegele, Paulo Philippi

BOUNDARY CONDITIONS IN REGULARIZED LATTICE-BOLTZMANN

L : Francois Dubois

COMPACT THIRD ORDER EXPANSION OF LATTICE BOLTZMANN SCHEMES

L : Zeyd Benseghier, Pablo Cuellar, Li-Hua Luu, Stephane Bonelli, Pierre Philippe

PARALLEL LBM-DEM SIMULATION OF FLUID FLOW EROSION USING GPU

L : Vanessa Gluck Nardi, Admilson T. Franco

IMMERSED BOUNDARY LATTICE BOLTZMANN METHOD FOR 2D PARTICLE SEDIMENTATION IN POWER-LAW FLUIDS

L : Ricardo Bazarin, Christian Naaktgeboren, Silvio Junqueira

PORE-SCALE SIMULATION OF THE WETTABILITY INFLUENCE ON THE DISPLACEMENT OF IMMISCIBLE FLUIDS USING A LATTICE-BOLTZMANN METHOD

L : Joel Beny, Jonas Latt

EFFICIENT LBM ON GPUS FOR DENSE MOVING OBJECTS USING IMMERSED BOUNDARY CONDITION

11:00 - 12:30

Session T1 - Room RP5 (CT)

MS14 - Data Science Approaches and Applications

Chair: Nelson F.F. Ebecken

L : Marcelo Beckmann, Nelson Ebecken and Beatriz De Lima

STOCK PRICE CHANGE PREDICTION USING NEWS TEXT MINING

L : Patricia Dias, Thiago Dias, Gray Moita

FRAMEWORK FOR DISCOVERING KNOWLEDGE IN A SCIENTIFIC DATA REPOSITORY

L : Paulo Guilherme Inca, Gabriel Maidl, Eduardo Massashi Yamao, Renato De Arruda Penteado Neto, Leandro Coelho, Cintia De Carvalho Toledo

ON THE OPTIMIZATION OF POWER GENERATED BY COMBINED CYCLE HEAVYDUTY GAS TURBINE

L : Jether Gomes, Thiago Dias, Gray Moita

IDENTIFICATION OF PRINCIPAL RESEARCH TOPICS STUDIED IN ENGINEERING IN BRAZIL

L : Leandro da Silva Carvalho

USO DAS PLATAFORMAS DE CLOUD COMPUTING EMACHINE LEARNING PARA A CRIA-
CAO DE MODELOS RFMP

L : Eliaquim Ramos, Leandro Tavares Da Silva, Gilson Giralddi, Jaime Cardoso

DEEP NEURAL NETWORK FOR VECTOR FIELD TOPOLOGY RECOGNITION WITH APPLICA-
TIONS TO FLUID FLOW SUMMARIZATION

11:00 - 12:30

Session T1 - Room RP4 (CT)

MS23 - Advances Thermal Sciences and Heat Propagation Problems

Chair : Jean-Michel Bergheau, Alfredo Gay Neto

L : Flávio Albuquerque, Dhiego Veloso, Carlos Santos

ANALYSIS OF PROPAGATION OF CONTAMINANTS IN SANITARY LANDFILLS USING OF
THE GENERALIZED INTEGRAL TRANSFORM TECHNIQUE

*L : Guilherme Garcia Botelho, Humberto Alves Da Silveira Monteiro, Rodrigo Guerra Peixoto and
Roque Luiz Da Silva Pitangueira*

OBJECT ORIENTED FRAMEWORK FOR MULTIPHYSICS ANALYSIS

*L : Juan Diego Dos Santos Heringer, Jo ao Gabriel de Souza Debossam, Grazione de Souza, Helio Pedro
Amaral Souto*

NUMERICAL SIMULATION OF NON-ISOTHERMAL FLOW IN OIL RESERVOIRS USING A
TWO-EQUATION MODEL

L : Carlos Alberto Dutra Fraga Filho, Lucas Lustosa Schuina, Brenda Silva Porto

A COMPARATIVE STUDY OF NEIGHBOURING PARTICLE SEARCH METHODS IN COMPUTA-
TIONAL FLUID MECHANICS: DIRECT SEARCH AND LINKED LIST TECHNIQUES EVALUA-
TION

L : Yabo Jia, Jean-Christophe Roux, Eric Feulvarch, Jean-Baptiste Leblond, Jean-Michel Bergheau

A NODAL INTEGRATION METHOD TO SIMULATE WELDING AND ROLLING PROCESSES IN
THE REFERENCE FRAME RELATED TO THE SOLICITATIONS

11:00 - 12:30

Session T1 - Room RP3 (CT)

MS20 - On the Numerical Simulation of Discrete Fracture Networks

Chair : Philippe Devloo, Chensong Zhang

L : Philippe R. B. Devloo, Chensong Zhang

ON THE NUMERICAL SIMULATION OF DISCRETE FRACTURE NETWORKS

L : Gustavo Ramirez, Fernando Contreras, Darlan Carvalho, Paulo Lyra

APPLICATION OF HIGH ORDER FLUX RECONSTRUCTION/CORRECTION PROCEDURE VIA RECONSTRUCTION (FR/CPR) METHOD COUPLED TO A NONORTHODOX MULTIPOINT FLUX APPROXIMATION METHOD (MPFA-D) IN THE SIMULATION OF TWO- PHASE FLOWS IN PETROLEUM RESERVOIRS

L : Emina Hadzalic, Adnan Ibrahimbegovic, Samir Dolarevic

NOVEL METHOD FOR ACOUSTIC FLUID-STRUCTURE INTERACTION IN APPLICATION TO OVERALL SAFETY OF STRUCTURES IN QUASI-STATIC SETTING

L : Joao Gabriel Souza Debossam, Juan Diego Dos Santos Heringer, Grazione de Souza, Helio Pedro Amaral Souto

NUMERICAL SIMULATION OF SINGLE-PHASE TWO-COMPONENT FLOW IN NATURALLY FRACTURED OIL RESERVOIRS

L : Chensong Zhang, Philippe R. B. Devloo

NUMERICAL SIMULATION OF DISCRETE FRACTURE NETWORKS IN PETROLEUM RESERVOIR SIMULATION

L : Ivan Rukavina, Adnan Ibrahimbegovic

MULTISCALE COMPUTATION PROCEDURE FOR LOCALIZED FAILURE: ED-FEM VERSUS FE2 MICRO-MACRO REPRESENTATIONS

12:30 - 13:30

Lunch-Break

LUNCH AREA

13:30 - 15:00

Session T2 - Room Amphi Centre d'Innovation (CI)

Advances in Solid and Structural Mechanics

Chair : Alfredo Gay Neto, Paulo Pimenta

L : Guido Giuntoli, Guillaume Houzeaux, Mariano Vazquez, Sergio Oller

FE2 MULTI-SCALE METHOD APPLIED TO SIMULATE COMPOSITE MATERIALS STRUCTURES IN SUPERCOMPUTERS

L : Abir Boujelben, Adnan Ibrahimbegovic

EFFICIENT COMPUTATIONAL MODEL FOR FLUID – STRUCTURE INTERACTION IN APPLICATION TO LARGE OVERALL MOTION OF GIANT WIND TURBINE FLEXIBLE BLADES WITH LONG TERM RESPONSE

L : Sascha Maassen, Paulo de Mattos Pimenta and Jorg Schroder

A GEOMETRICALLY EXACT EULER-BERNOULLI BEAM FORMULATION FOR NONLINEAR 3D MATERIAL LAWS

L : Helena Fideles, Marco Santos, Sergio Santos, Webe Mansur

DYNAMIC ANALYSIS OF FOUNDATIONS CONSIDERING SOIL-STRUCTURE INTERACTION IN A LAYERED MEDIUM

L : Iara Ribeiro, Francisco Celio de Araujo, Katia Silva, Tatiane Maga Mendes

POST-BUCKLING ANALYSIS OF PLANE FRAME STRUCTURES WITH VARIABLE RIGIDITY ELEMENTS

L : Andressa Silva, Matheus Lima, Avelino Dias

NUMERICAL ANALYSIS OF MULTIPLE STRESS CONCENTRATIONS IN DIFFERENT MATERIALS

13:30 - 15:00

Session T2 - Room RP6 (CT)

MS26 - Fluid-Structure Interaction

Chair : Lineu José Pedroso, Emmanuel Lefrançois, Emmanuel Perrey-Debain

L : Emmanuel Lefrançois

NUMERICAL INVESTIGATION OF STRONG ADDED MASS EFFECT FOR FLUID-STRUCTURE CALCULATIONS APPLIED TO MOVING HYDROFOILS

L : Herminio T. Honorio, Felipe Giacomelli, Lucas G. T. Da Silva and Clovis R. Maliska

A FULLY-CONSERVATIVE FINITE VOLUME FORMULATION FOR COUPLED POROELASTIC PROBLEMS

L : Davidson Mohammad Malekan, Simao Bach, Idagene A. Cestari

FLUID-STRUCTURE INTERACTION MODELING OF A PEDIATRIC VENTRICULAR ASSIST DEVICE

L : Iarly Vanderlei Da Silveira, Mauricio Mendes Vitalli, Lineu Jose Pedroso

UM ESTUDO EM VIBRACOES LIVRES ACOPLADAS BARRAGEM-RESERVATORIO PELO METODO DAS DIFERENCAS FINITAS E ELEMENTOS FINITOS

L : Mohamed Almerio Pamplona, Flavia Cardoso, Fabiano Dos Santos, Joel Vasco

SIMULACAO TRANSIENTE DE ESCOAMENTOS LAMINARES UTILIZANDO O METODO SPH

L : Mohamed Ali, Sami Kaidi, Emmanuel Lefrançois

EFFECT OF THE MUDDY AREA ON THE SURFACE WAVE ATTENUATION AND THE SHIP'S SQUAT

13:30 - 14:30

Session T2 - Room RP5 (CT)

MS14 - Data Science Approaches and Applications

Chair: Nelson F.F. Ebecken

L : Gilberto Pereira and Nelson Ebecken

SYNCHRONIZATION IN ECOLOGICAL NETWORKS

L : Leandro Da Silva Carvalho, Nelson Francisco Favilla Ebecken

A NEW APPROACH TO CREATE PROFITABLE CUSTOMER PROFILES USING MACHINE LEARNING AND RFMP MODEL

L : Stéphane Dellacherie, Olivier Milon, Cédric Poutré, Arnaud Zinflou

FORCAST DEMAND ON THE QUEBEC POWER GRID: CHALLENGES AHEAD

L : Kesley Silva, Matheus Delgado, Adriano Drumond, Thiago Dias

DEVELOPMENT OF A ROBOTIC PROSTHESIS CONTROLLED BY MYOELECTRIC SENSORS

L : Daiane Faller

A LAGRANGIAN TRANSPORT MODEL TO SIMULATE THE TRAJECTORY OF OCEANIC FLOATS

14:45 - 15:00

Session T2 – Room RP5 (CT)

MS29 - Experimental investigation of wave propagation in light weight structures undergoing flexural vibration

Chair: Daniely A. Neves, Pedro Casado, Adriano T. Fabro

L : Andre Valente, Leandro Di Bartolo, Webe Mansur

3D SEISMIC MODELING WITH OCTREE MESHES

13:30 - 15:00

Session T2 - Room RP4 (CT)

MS16 - Numerical Methods Applied to Structural Design of Civil Construction

Chair: João Costa Pantoja, Marcio Augusto Roma Buzar, Leonardo da Silveira P. Inojosa

L : Eduard Antaluca, Raphael Rolin, Jean-Louis Batoz, Fabien Lamarque

ON THE ANALYSIS OF AN INNOVATIVE ARCHITECTURAL PROJECT OF THE XIII CENTURY CONSIDERING MODERN NUMERICAL TECHNIQUES: THE SPIRE OF THE SENLIS CATHEDRAL

L : Guilherme Barros, Luiz Fernando Martha, Evandro Parente Junior

A LAGRANGE MULTIPLIER FORMULATION FOR CONSIDERING MEMBER DEFORMATION CONSTRAINTS INTO MATRIX STRUCTURAL ANALYSIS

L : Kaio Ricardo Da Silva, Evangelos Dimitrios Christakou, Lenildo Santos Da Silva

INTEROPERABILITY BETWEEN STRUCTURAL DESIGN SOFTWARE WITH BIM PLATFORM

L : Kamila Nascimento, Marco Bessa, Leonardo Inojosa

ESTUDO EM OTIMIZACAO DE TERCAS PARA COBERTURAS DE GALPOES LEVES

L : José Neto Silva, Júlio César Da Silva, Simone Santos Da Silva, Raphael Henrique Falcão De Melo, Tássia Dos Anjos Tenório De Melo and Antonio Wagner De Lima

ANÁLISE DOS ESFORÇOS CAUSADOS PELA INCIDENCIA DO VENTO EM ESTRUTURAS METÁLICAS UTILIZANDO O MÉTODO DOS VOLUMES FINITOS

L : David Sebastian Cotes Prieto, Cesar Andres Mendez Poveda, William Giovanny Alfonso Leon, Oscar Javier Begambre Carrillo

CONCRETE QUANTITY MINIMIZATION FOR A SHALLOW FOUNDATION INTEGRATING PARTICLE SWARM OPTIMIZATION AND A SOIL STRUCTURE-INTERACTION ANALYSIS

15:00 - 15:30

Coffee-Break

LUNCH AREA

15:30 - 17:00

Session T3 - Room Amphi Centre d'Innovation (CI)

MS22 - Advances in Solid and Structural Mechanics

Chair : Alfredo Gay Neto, Paulo Pimenta

L : Simona Dobrilla, Noemi Friedman, Tea Rukavina, Hermann Matthies, Adnan Ibrahimbegovic

PROBABILISTIC ANALYSIS OF FAILURE OF FIBER REINFORCED CONCRETE

L : Pedro Virgolino, Catia Costa E. Silva, Paulo de Mattos Pimenta

GEOMETRICALLY EXACT TIMOSHENKO ROD THEORY WITH INCREMENTAL RODRIGUES PARAMETERS

L : Guoqiang Wei, Pascal Lardeur, Frederic Druet

OVERALL ADAPTIVE MODELING FOR THE STATIC AND DYNAMIC FINITE ELEMENT ANALYSIS OF STRUCTURES

L : Vitoriano Ruas

A SIMPLE ALTERNATIVE FOR HIGHER ORDER FINITE-ELEMENT SOLUTION OF BOUNDARY VALUE PROBLEMS POSED IN CURVED DOMAINS

L : Dang Phong Bach, Delphine Brancherie, Ludovic Cauvin

FINITE ELEMENT STRATEGIES FOR MODELING THE SIZE EFFECT IN NANOREINFORCED MATERIALS

L : Adair Aguiar, Gianni Royer-Carfagni, Alan Seitenfuss

STRAIN LOCALIZATIONS IN PERIDYNAMIC BARS WITH NON-CONVEX POTENTIAL

15:30 - 17:00

Session T3 - Room RP6 (CT)

MS26 - Fluid-Structure Interaction

Chair : Lineu José Pedroso, Abdellatif Ouahsine

L : Felipe Pamplona Mariano, Andreia Aoyagui Nascimento, Aristeu Da Silveira Neto

FLOWOVER A CYLINDER FIXED BY SPRING AND DAMPER SOLVED BY FOURIER PSEUDOSPECTRAL AND IMMERSSED BOUNDARY METHODS

L : Elder Gualberto Alves, Felipe Pamplona Mariano and Andreia Aoyagui Nascimento

A NUMERICAL STUDY OF FLOW AROUND CIRCULAR AND RECTANGULAR CYLINDERS

L : Peng Du, Abdellatif Ouahsine

SIMULATION OF SHIP MOTIONS IN STATIC AND DYNAMIC STATES

L : Jeferson Fernandes, Rodolfo Sanches

MODELLING OF INCOMPRESSIBLE FLOWS WITH MOVING BOUNDARIES EMPLOYING THE ARLEQUIN FRAMEWORK

L : Davidson De Oliveira Franca Junior, Lineu Jose Pedroso

UM ESTUDO ANALITICO-NUMERICO DAS VIBRACOES FORCADAS EM CASCAS CILINDRICAS DESACOPLADAS E ACOPLADAS FLUIDO-ESTRUTURA PARA DIFERENTES CONDIÇÕES DE CONTORNO

L : Dong Ding, Abdellatif Ouahsine, Peng Du

NUMERICAL STUDY OF BALLAST-FLYING PROCESS CAUSED BY ACCRETING SNOW/ICE ON HIGH-SPEED TRAINS BY USING THE DISCONTINUOUS DEFORMATION ANALYSIS (DDA)

15:30 - 17:00

Session T3 Room RP5 (CT)

MS27 - Reduced Order Modeling in Computational Mechanics

Chair : Piotr Breitskopf, Florian de Vuyst

L : Marcello Congro, Rafael Abreu, Deane Roehl

IDENTIFYING ELASTIC PROPERTIES OF GEOMECHANICAL RESERVOIR MODELS USING METAHEURISTIC OPTIMIZATION TECHNIQUES

L : Balaji Raghavan, Ludovic Cauvin, Salima Bouvier, Piotr Bretkopf, Fodil Meraghni
MULTI-SCALE CHARACTERIZATION OF HIGHLY ANISOTROPIC POLYCRISTALLINE MATERIALS

L : Vanessa Gluck Nardi, Admilson T. Franco
IMMERSED BOUNDARY - LATTICE BOLTZMANN METHOD FOR 2D PARTICLE SEDIMENTATION IN POWER-LAW FLUIDS

L : Pedro Lopes, Rafael Rangel, Luiz Fernando Martha
AN INTERACTIVE-GRAPHICS TOOL FOR MODELING AND ANALYZING STRUCTURES IN MATLAB

L : Fabiana De Fatima Giacomini, Ana Paula Da Silveira Vargas
REPEATED RICHARDSON EXTRAPOLATION WITH VERIFICATION OF THE ORDER OF ACCURACY OF NUMERICAL SCHEMES AND THE FORMS OF APPLYING BOUNDARY CONDITIONS OF THE FINITE VOLUME METHOD ON THE LAPLACE EQUATION

L : Pierre Phalippou, Salim Bouabdallah, Piotr Bretkopf, Pierre Villon
MODEL ORDER REDUCTION IN STRUCTURAL RAPID DYNAMICS WITH APPLICATION TO CRASHWORTHINESS DESIGN

15:30 –17:00

Session T3 - Room RP4 (CT)

MS16 - Numerical Methods Applied to Structural Design of Civil Construction

Chair: João Costa Pantoja, Marcio Augusto Roma Buzar, Leonardo da Silveira P. Inojosa

L : Marco Bessa, Leonardo Inojosa, Jose Humberto De Paula, Ronaldo Almeida and Marcio Buzar
ANALISE ESTRUTURAL DA BIBLIOTECA DA FACULDADE DE MEDICINA DO DISTRITO FEDERAL

L : Lucas Favarato, Adenilcia Calenzani, Juliana Pires, Elisabeth Junges, Johann Ferrareto
EVALUATION OF THE RESISTANCE OF TRUSSED SLABS WITH STEEL FORMWORK IN COLD FORMED U PROFILE

L : Joao Xavier, Robson Pereira, Lineu Pedroso and Paulo Martins
IMPLEMENTATION OF NUMERICAL SOLUTIONS FOR BOND-SLIP EFFECT APPLIED IN REINFORCED CONCRETE BEAMS CONSIDERING THE VARIABLE BOND MODEL

L : Robson Pereira, Joao Paulo Xavier, Paulo Martins, Lineu Pedroso
AVALIACAO DE METODOS SIMPLIFICADOS E REFINADOS UTILIZADOS PARA A DETERMINACAO DAS FLECHAS IMEDIATAS EM ELEMENTOS FLETIDOS DE CONCRETO (COERENCIA COM DADOS EXPERIMENTAIS)

L : Flavio Torres Da Fonseca, Roque Luiz Da Silva Pitangueira and Samuel Silva Penna
SOFTWARE EROSION ON A STRUCTURAL ANALYSIS SOFTWARE - A CASE STUDY

L : Rafael Rangel, Luiz Fernando Martha

EDUCATIONAL TOOL FOR THE ANALYSIS OF STRUCTURES WITH GEOMETRIC NONLINEARITY

17:00 -18:30

ABMEC General Assembly

Room: Amphi Colcombet, Centre de Transfert

19:00 - 22:00

Appreciation diner (MS* Organizers)**

Wednesday, November 14, 2018
(PL=45 min plenary lecture)
Room : IUF, Ministère d'enseignement supérieur, Paris

13:30 - 14:00

Registration for Conference Banquet

14:00 - 14:45

PL: H.G. Matthies

ASPECTS OF MULTI-SCALE COUPLING OF INELASTIC PROCESSES IN SOLID MECHANICS

14:45 - 15:30

PL: Y. Maday

OLD AND NEW CONTRIBUTIONS ON REDUCED BASIS METHODS

15:30 - 16:00

Coffee-Break
LUNCH AREA

16:00 - 16:45

PL: P.M. Pimenta

FINITE ELEMENT ANALYSIS OF SLENDER BEAMS AND THIN SHELLS

16:45 - 17:30

PL: J. Yvonnet

NUMERICAL MODELING OF FRACTURE IN HIGHLY HETEROGENEOUS MATERIALS

17:30 – 19:30

Guided Tour (Notre Dame, Louvre Museum ...)

19:45 – 23:00

Banquet CILAMCE 2018, Bateaux Mouches
Departure Pont Alma, Paris

4. SOCIAL EVENTS

4.1. *Museum-Wagon and Imperial Palace - Sunday, 11 November 2018 – Compiègne*

Compiègne is royal and imperial city, theater of major events in the history of France. Its famous Napoleon Palace, its Town Hall, its churches and museums illustrate thousand years of existence.

Visit of the Museum-Wagon in the forest of Compiègne where Armistice (peace agreement) was signed on 11 November 1918 – optional visit

Time and location: 10am, in front of the City Hall (Hôtel de Ville)

Armistice Day – 100th anniversary of the peace agreement to end the World War I, signed between the Allies of World War I and Germany in Compiègne, France, which took effect at eleven o'clock in the morning — the “eleventh hour of the eleventh day of the eleventh month” of 1918. It'll be a great opportunity to visit Armistice Museum and Memorial to celebrate 100th anniversary of the First World War end.

Visit of Imperial Palace in Compiègne – optional visit

Time and location: 4pm, in front of the City Hall (Hôtel de Ville)

4.2. *Welcome reception, Compiègne City Hall - Monday, 12 November 2018 - Compiègne*

All participants to CILAMCE 2018 are welcome to a cocktail at the Compiègne City Hall (see map on page 32). The cocktail will be followed by a dinner at Bistrot de Flandre and Table d'Élisa.

4.3. *Dinner cruise on the Seine - - Wednesday, 14 November 2018 - Compiègne*

Time and location: 7:45pm, Bateaux-Mouches, Port de la Conférence, Paris

As a fine way to end the conference, the cruise with a banquet on the Seine with Bateaux Mouches is programmed to explore Paris from its best avenue and enjoying French cuisine.

Tickets for the banquet on the Seine will be distributed to participants during the plenary lectures at IUF – Institut Universitaire de France. After the lectures, a walk to the starting point of the river cruise Bateaux Mouches will be organized. The walk of approximately 2h will pass near famous monuments such as the Pantheon, Notre Dame Cathedral, and Louvre Museum.



5.2. Conference location

