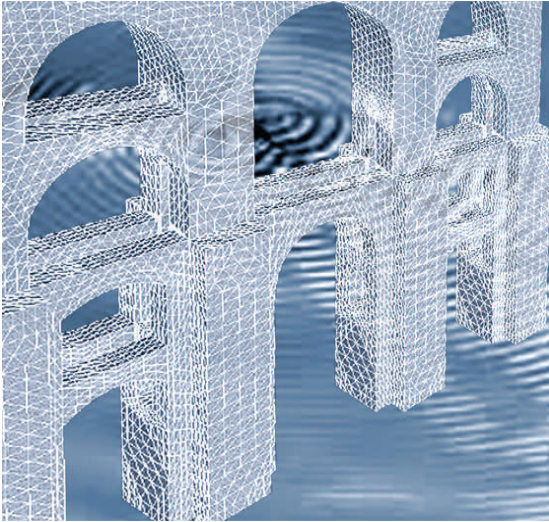




12-14 June, Kos, Greece



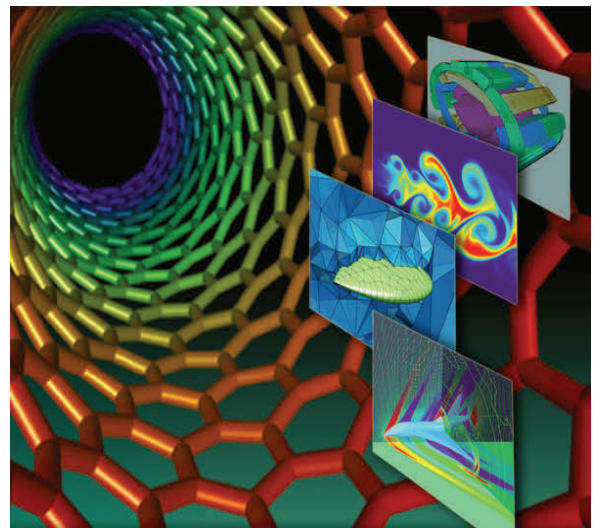
## COMPDYN 2013

4<sup>th</sup> International Conference on  
Computational Methods in  
Structural Dynamics and  
Earthquake Engineering

## PROGRAMME

### SEECM III

3<sup>rd</sup> South-East European  
Conference on  
Computational Mechanics



Conference Secretariat:  
Institute of Structural Analysis and Antiseismic Research  
National Technical University of Athens, Greece



## **COMPDYN 2013**

**4<sup>th</sup> International Conference on  
Computational Methods in Structural  
Dynamics and Earthquake Engineering**

**An ECCOMAS Thematic Conference  
An IACM Special Interest Conference**

## **III SEECM**

**3<sup>rd</sup> South-East European Conference on  
Computational Mechanics**

**An ECCOMAS Special Interest Conference  
An IACM Special Interest Conference**

**Kos, Greece, June 12-14, 2013**

## **Programme**



**Institute of Structural Analysis and Antiseismic Research  
School of Civil Engineering  
National Technical University of Athens**

# PROGRAMME OVERVIEW

TUESDAY, JUNE 11						
17:00 – 19:00	REGISTRATION					
19:00 – 20:30	Welcome Reception: Kipriotis Village Resort, Olympic Swimming Pool					
DAY 1 - WEDNESDAY, JUNE 12 (Rooms 1-6)						
Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6
08:00 – 08:45	REGISTRATION					
08:45 – 09:00	OPENING					
09:00 – 11:00	PLENARY LECTURES – I					
11:00 – 11:30	Coffee Break					
TECHNICAL SESSIONS						
11:30 – 13:00	<b>COMPdyn MS 11</b> PROBABILISTIC METHODS IN DESIGN AND ASSESSMENT OF STRUCTURES: CONCEPTS AND APPLICATIONS - I	<b>COMPdyn MS 14</b> SEISMIC ASSESSMENT AND RETROFIT OF BRIDGES - I	<b>COMPdyn MS 16</b> RECENT ADVANCES IN EXPERIMENTAL PILE DYNAMICS & SOIL-STRUCTURE INTERACTION	<b>COMPdyn MS 6</b> LOW COST METHODS FOR ROBUST DESIGN IN STRUCTURAL DYNAMICS AND VIBROACOUSTICS	<b>COMPdyn MS 20</b> SEISMIC BEHAVIOUR AND DESIGN OF PRECAST STRUCTURES - I	<b>COMPdyn MS 35</b> HIGH-PERFORMANCE COMPUTING FOR STRUCTURAL MECHANICS AND EARTHQUAKE ENGINEERING
13:00 – 14:30	Lunch Time					
TECHNICAL SESSIONS						
14:30 – 16:30	<b>COMPdyn MS 11</b> PROBABILISTIC METHODS IN DESIGN AND ASSESSMENT OF STRUCTURES: CONCEPTS AND APPLICATIONS - II	<b>COMPdyn MS 39</b> RECENT ADVANCES AND CHALLENGES IN GEOTECHNICAL EARTHQUAKE ENGINEERING - II	<b>COMPdyn MS 17</b> RISK ASSESSMENT AND QUANTIFICATION IN ENGINEERING: A MULTI-DISCIPLINARY PERSPECTIVE - I	<b>SEECM MS 17</b> ISOGEOMETRIC METHODS - I	<b>COMPdyn MS 20</b> SEISMIC BEHAVIOUR AND DESIGN OF PRECAST STRUCTURES - II	<b>COMPdyn MS 5</b> CONTROL OF VIBRATIONS IN CIVIL ENGINEERING BY PASSIVE, ACTIVE AND SEMI-ACTIVE DEVICES - I
16:30 – 17:00	Coffee Break					
TECHNICAL SESSIONS						
17:00 – 19:00	<b>COMPdyn RS 19</b> REPAIR AND RETROFIT OF STRUCTURES  <b>COMPdyn RS 21</b> SEISMIC DESIGN AND ASSESSMENT OF BRIDGES	<b>COMPdyn MS 4</b> PERFORMANCE-BASED ENGINEERING AND RELIABILITY-BASED DESIGN - II	<b>COMPdyn MS 17</b> RISK ASSESSMENT AND QUANTIFICATION IN ENGINEERING: A MULTI-DISCIPLINARY PERSPECTIVE – II  <b>COMPdyn MS 23</b> ADVANCES IN STRUCTURAL VIBRATIONS - II	<b>SEECM MS 17</b> ISOGEOMETRIC METHODS - II	<b>COMPdyn RS 29</b> SOIL-STRUCTURE INTERACTION - I	<b>COMPdyn RS 22</b> SEISMIC PERFORMANCE EVALUATION UNDER UNCERTAINTY  <b>COMPdyn RS 23</b> SEISMIC RISK AND RELIABILITY ANALYSIS

**DAY 1 - WEDNESDAY, JUNE 12 (Rooms 7-12)**

Time	Room 7	Room 8	Room 9	Room 10	Room 11	Room 12
08:00 – 08:45	REGISTRATION					
08:45 – 09:00	OPENING					
09:00 – 11:00						
11:00 – 11:30	Coffee Break					
11:30 – 13:00	TECHNICAL SESSIONS					
	<p align="center"><b>COMPdyn MS 9</b> WIND EFFECTS ON STRUCTURES</p>	<p align="center"><b>COMPdyn MS 4</b> PERFORMANCE-BASED ENGINEERING AND RELIABILITY-BASED DESIGN – I</p> <p align="center"><b>COMPdyn MS 1</b> PROGRESS AND CHALLENGES IN PERFORMANCE-BASED EARTHQUAKE ENGINEERING</p>	<p align="center"><b>SEECM MS 5</b> MESHFREE AND PARTICLE METHODS FOR SEVERE LOADINGS - I</p>	<p align="center"><b>COMPdyn MS 22</b> ADVANCES IN COMPUTATIONAL METHODS FOR RESILIENT STRUCTURAL SYSTEMS UNDER EXTREME HAZARDS</p>	<p align="center"><b>COMPdyn MS 12</b> ADVANCES IN NUMERICAL METHODS FOR LINEAR AND NON-LINEAR DYNAMICS</p>	<p align="center"><b>COMPdyn MS 39</b> RECENT ADVANCES AND CHALLENGES IN GEOTECHNICAL EARTHQUAKE ENGINEERING - I</p>
13:00 – 14:30	Lunch Time					
14:30 – 16:30	TECHNICAL SESSIONS					
16:30 – 17:00	<p align="center"><b>COMPdyn MS 27</b> UNCERTAINTY QUANTIFICATION IN COMPUTATIONAL DYNAMICS – I</p>	<p align="center"><b>COMPdyn MS 14</b> SEISMIC ASSESSMENT AND RETROFIT OF BRIDGES - II</p>	<p align="center"><b>COMPdyn MS 7</b> DYNAMIC EFFECTS ON HIGH-SPEED RAILWAY TRACKS</p>	<p align="center"><b>COMPdyn RS 11</b> IMPACT DYNAMICS</p>	<p align="center"><b>COMPdyn MS 23</b> ADVANCES IN STRUCTURAL VIBRATIONS - I</p>	<p align="center"><b>SEECM MS 6</b> COMPUTATIONAL MODELING OF CARDIOVASCULAR DISEASES</p>
	<p align="center"><b>COMPdyn MS 15</b> NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS - I</p>			<p align="center"><b>COMPdyn MS 2</b> COMPUTATIONAL CONTACT MECHANICS - SEISMIC INTERACTION (POUNDING) BETWEEN ADJACENT STRUCTURES</p>		
16:30 – 17:00	Coffee Break					
17:00 – 19:00	TECHNICAL SESSIONS					
	<p align="center"><b>COMPdyn MS 29</b> ACCURACY AND COMPUTATIONAL EFFICIENCY IN DYNAMIC/SEISMIC STRUCTURAL ANALYSIS - I</p>	<p align="center"><b>COMPdyn MS 15</b> NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS – II</p>	<p align="center"><b>COMPdyn MS 41</b> BRICK-INFILLED RC FRAMES: SEISMIC BEHAVIOR AND RETROFIT</p> <p align="center"><b>COMPdyn MS 32</b> SEISMIC ANALYSIS AND DESIGN OF IRREGULAR BUILDINGS</p>	<p align="center"><b>COMPdyn MS 19</b> IDENTIFICATION METHODS IN STRUCTURAL DYNAMICS</p>	<p align="center"><b>COMPdyn RS 5</b> DESIGN METHODS UNDER DYNAMIC AND SEISMIC ACTIONS</p>	<p align="center"><b>COMPdyn MS 8</b> RESILIENCE BASED-DESIGN OF COMMUNITIES AND INFRASTRUCTURES</p> <p align="center"><b>COMPdyn RS 3</b> COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - I</p>

**DAY 2 - THURSDAY, JUNE 13 (Rooms 1-6)**

<b>Time</b>	<b>Room 1</b>	<b>Room 2</b>	<b>Room 3</b>	<b>Room 4</b>	<b>Room 5</b>	<b>Room 6</b>
	<b>TECHNICAL SESSIONS</b>					
<b>08:30 – 10:30</b>	<b>COMPdyn MS 26</b> COMPUTATIONAL MULTIBODY SYSTEM DYNAMICS	<b>COMPdyn MS 33</b> STEEL AND COMPOSITE STEEL REINFORCED CONCRETE STRUCTURES UNDER DYNAMIC AND SEISMIC LOADING	<b>COMPdyn RS 28</b> SOIL DYNAMICS  <b>COMPdyn MS 29</b> ACCURACY AND COMPUTATIONAL EFFICIENCY IN DYNAMIC/SEISMIC STRUCTURAL ANALYSIS – II	<b>COMPdyn MS 13</b> DYNAMIC SOIL STRUCTURE INTERACTION MODELING AND SIMULATION  <b>COMPdyn RS 29</b> SOIL-STRUCTURE INTERACTION - II	<b>COMPdyn MS 3</b> PROGRESS AND CHALLENGES IN SPACECRAFT STRUCTURAL DYNAMICS - I	<b>COMPdyn RS 4</b> CONSTITUTIVE MODELLING UNDER DYNAMIC AND SEISMIC ACTIONS
<b>10:30 – 11:00</b>	<b>Coffee Break</b>					
<b>11:00 – 13:00</b>	<b>SEMI-PLENARY LECTURES – I</b>			<b>SEMI-PLENARY LECTURES – I</b>		
<b>13:00 – 14:30</b>	<b>Lunch Time</b>					
<b>14:30 – 16:30</b>	<b>SEMI-PLENARY LECTURES - II</b>			<b>SEMI-PLENARY LECTURES – II</b>		
<b>16:30 – 17:00</b>	<b>Coffee Break</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>17:00 – 19:00</b>	<b>SEECM RS 4</b> COMPUTATIONAL NANOSCIENCE AND NANOTECHNOLOGY  <b>SEECM RS 14</b> SMART MATERIALS AND STRUCTURES	<b>SEECM RS 1</b> BIOMECHANICS  <b>SEECM RS 2</b> CAD, CAM AND CAE	<b>COMPdyn MS 15</b> NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS - III	<b>COMPdyn MS 27</b> UNCERTAINTY QUANTIFICATION IN COMPUTATIONAL DYNAMICS - II	<b>COMPdyn MS 3</b> PROGRESS AND CHALLENGES IN SPACECRAFT STRUCTURAL DYNAMICS - II	
<b>20:30 – 23:30</b>	<b>Conference Dinner: Kipriotis Panorama Hotel &amp; Suites, Main Swimming Pool</b>					

**DAY 2 - THURSDAY, JUNE 13 (Rooms 7-12)**

<b>Time</b>	<b>Room 7</b>	<b>Room 8</b>	<b>Room 9</b>	<b>Room 10</b>	<b>Room 11</b>	<b>Room 12</b>
	<b>TECHNICAL SESSIONS</b>					
<b>08:30 – 10:30</b>	<b>SEECM MS 8</b> COMPUTATIONAL NON- NEWTONIAN FLUID MECHANICS	<b>SEECM MS 24</b> PROBLEMS WITH HETEROGENEOUS MATERIALS  <b>SEECM MS 22</b> THE MULTISCALE STOCHASTIC FINITE ELEMENT METHOD	<b>COMPdyn RS 25</b> SIMULATION METHODS FOR DYNAMIC PROBLEMS - I	<b>SEECM RS 13</b> OPTIMIZATION	<b>COMPdyn MS 18</b> SEISMIC ASSESSMENT OF HERRITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION - I	<b>SEECM MS 15</b> COMPUTATIONAL CONTACT MECHANICS - I
<b>10:30 – 11:00</b>	<b>Coffee Break</b>					
<b>11:00 – 13:00</b>						
<b>13:00 – 14:30</b>	<b>Lunch Time</b>					
<b>14:30 – 16:30</b>						
<b>16:30 – 17:00</b>	<b>Coffee Break</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>17:00 – 19:00</b>	<b>COMPdyn RS 14</b> OPTIMUM DESIGN IN STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING	<b>COMPdyn MS 25</b> SOFTWARE DEVELOPMENT IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS	<b>COMPdyn RS 33</b> WAVES AND COMPUTATION  <b>COMPdyn RS 25</b> SIMULATION METHODS FOR DYNAMIC PROBLEMS - II	<b>SEECM MS 15</b> COMPUTATIONAL CONTACT MECHANICS - II	<b>COMPdyn RS 6</b>  DYNAMICS OF COUPLED PROBLEMS	<b>COMPdyn MS 28</b> PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO- ACOUSTICS AND STRUCTURAL DYNAMICS - I
<b>20:30 – 23:30</b>	<b>Conference Dinner:</b> Kipriotis Panorama Hotel & Suites, Main Swimming Pool					

**DAY 3 - FRIDAY, JUNE 14 (Rooms 1-6)**

<b>Time</b>	<b>Room 1</b>	<b>Room 2</b>	<b>Room 3</b>	<b>Room 4</b>	<b>Room 5</b>	<b>Room 6</b>
	<b>TECHNICAL SESSIONS</b>					
<b>09:00 – 10:30</b>	<b>COMPdyn MS 40</b> STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - I	<b>COMPdyn MS 36</b> SEISMIC SAFETY ASSESSMENT OF STRUCTURES - I	<b>COMPdyn RS 13</b> NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - I	<b>COMPdyn RS 16</b> PERFORMANCE-BASED ENGINEERING - I	<b>COMPdyn MS 24</b> ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - I	
<b>10:30 – 11:00</b>	<b>Coffee Break</b>					
<b>11:00 – 13:00</b>	<b>PLENARY LECTURES – II</b>					
<b>13:00 – 14:30</b>	<b>Lunch Time</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>14:30 – 16:30</b>	<b>COMPdyn MS 40</b> STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - II	<b>COMPdyn MS 36</b> SEISMIC SAFETY ASSESSMENT OF STRUCTURES - II	<b>COMPdyn RS 13</b> NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - II	<b>COMPdyn RS 17</b> REINFORCED CONCRETE STRUCTURES – I  <b>COMPdyn RS 16</b> PERFORMANCE-BASED ENGINEERING - II	<b>COMPdyn MS 24</b> ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - II	<b>COMPdyn MS 38</b> HUMAN INDUCED VIBRATIONS - I
<b>16:30 – 17:00</b>	<b>Coffee Break</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>17:00 – 19:00</b>	<b>SEECM MS 5</b> MESHFREE AND PARTICLE METHODS FOR SEVERE LOADINGS – II  <b>COMPdyn MS 40</b> STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - III	<b>COMPdyn RS 15</b> PASSIVE ACTIVE AND SEMI-ACTIVE DEVICES	<b>COMPdyn RS 10</b> IDENTIFICATION METHODS IN STRUCTURAL DYNAMICS  <b>COMPdyn RS 13</b> NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - III	<b>COMPdyn RS 17</b> REINFORCED CONCRETE STRUCTURES - II	<b>COMPdyn MS 24</b> ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - III	<b>COMPdyn MS 38</b> HUMAN INDUCED VIBRATIONS – II  <b>COMPdyn RS 1</b> ACTIVE-PASSIVE CONTROL

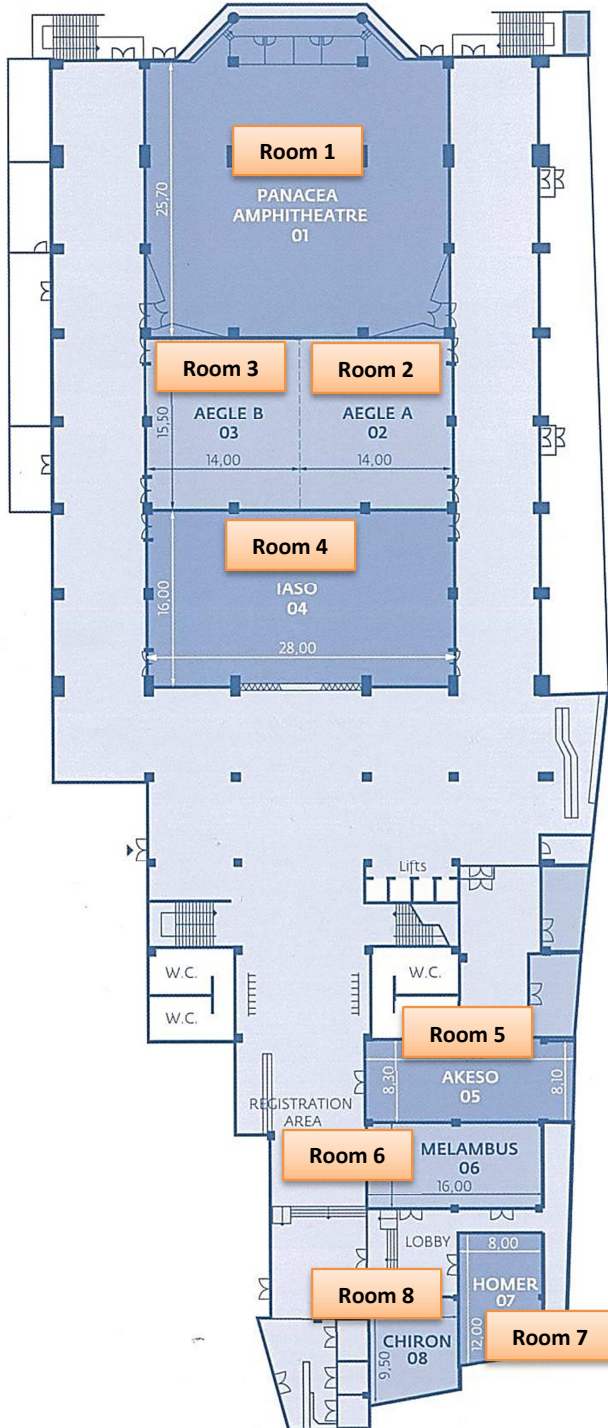
**DAY 3 - FRIDAY, JUNE 14 (Rooms 7-12)**

Time	Room 7	Room 8	Room 9	Room 10	Room 11	Room 12
	<b>TECHNICAL SESSIONS</b>					
<b>09:00 – 10:30</b>	<b>COMPdyn MS 21</b> SEISMIC BEHAVIOUR AND RETROFITTING OF MONUMENTS AND HISTORICAL BUILDINGS - I	<b>COMPdyn RS 3</b> COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - II	<b>SEECM MS 10</b> SOME INTERACTION PROBLEMS IN COMPUTATIONAL MECHANICS - I	<b>SEECM RS 5</b> COMPUTATIONAL SOLID AND STRUCTURAL MECHANICS – I  <b>SEECM MS 12</b> NUMERICAL IMPLEMENTATION ON CONSTITUTIVE MODELS	<b>COMPdyn RS 9</b> HIGH-PERFORMANCE COMPUTING: PARALLEL, DISTRIBUTED, GRID COMPUTING TECHNOLOGIES <b>COMPdyn RS 26</b> SIMULATION OF SOUND AND VIBRATION <b>SEECM MS 1</b> MESHLESS METHODS <b>SEECM RS 11</b> HIGH PERFORMANCE AND PARALLEL COMPUTING	<b>COMPdyn MS 28</b> PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS - II
<b>10:30 – 11:00</b>	<b>Coffee Break</b>					
<b>11:00 – 13:00</b>						
<b>13:00 – 14:30</b>	<b>Lunch Time</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>14:30 – 16:30</b>	<b>COMPdyn MS 21</b> SEISMIC BEHAVIOUR AND RETROFITTING OF MONUMENTS AND HISTORICAL BUILDINGS - II	<b>COMPdyn RS 3</b> COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - III	<b>SEECM MS 10</b> SOME INTERACTION PROBLEMS IN COMPUTATIONAL MECHANICS – II  <b>SEECM RS 10</b> GEOMECHANICS	<b>COMPdyn MS 10</b> SEISMIC ANALYSIS AND DESIGN OF INDUSTRIAL FACILITIES AND PIPELINES	<b>COMPdyn RS 8</b> GEOTECHNICAL EARTHQUAKE ENGINEERING - I	<b>SEECM RS 9</b> FLUID -STRUCTURE INTERACTION  <b>SEECM RS 7</b> FEM: MODELLING AND SIMULATION
<b>16:30 – 17:00</b>	<b>Coffee Break</b>					
	<b>TECHNICAL SESSIONS</b>					
<b>17:00 – 19:00</b>	<b>COMPdyn RS 24</b> SEISMIC SAFETY ASSESSMENT OF STRUCTURES  <b>COMPdyn RS 12</b> MASONRY STRUCTURES	<b>COMPdyn RS 27</b> SOFT COMPUTING APPLICATIONS  <b>COMPdyn RS 32</b> STRUCTURAL HEALTH MONITORING	<b>COMPdyn MS 28</b> PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS - III	<b>COMPdyn MS 18</b> SEISMIC ASSESSMENT OF HERITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION – II <b>COMPdyn MS 42</b> RELIGIOUS MONUMENTS: SEISMIC BEHAVIOR AND RETROFIT <b>COMPdyn RS 20</b> SEISMIC ASSESSMENT OF HERITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION	<b>COMPdyn RS 8</b> GEOTECHNICAL EARTHQUAKE ENGINEERING - II	<b>SEECM RS 12</b> MULTIPHYSICS-MULTISCALE PROBLEMS AND COMPUTATION <b>SEECM RS 3</b> COMPUTATIONAL ENVIRONMENTAL SCIENCE – III <b>SEECM RS 6</b> EXTENDED AND GENERALIZED FE METHODS <b>SEECM RS 5</b> COMPUTATIONAL SOLID AND STRUCTURAL MECHANICS - II

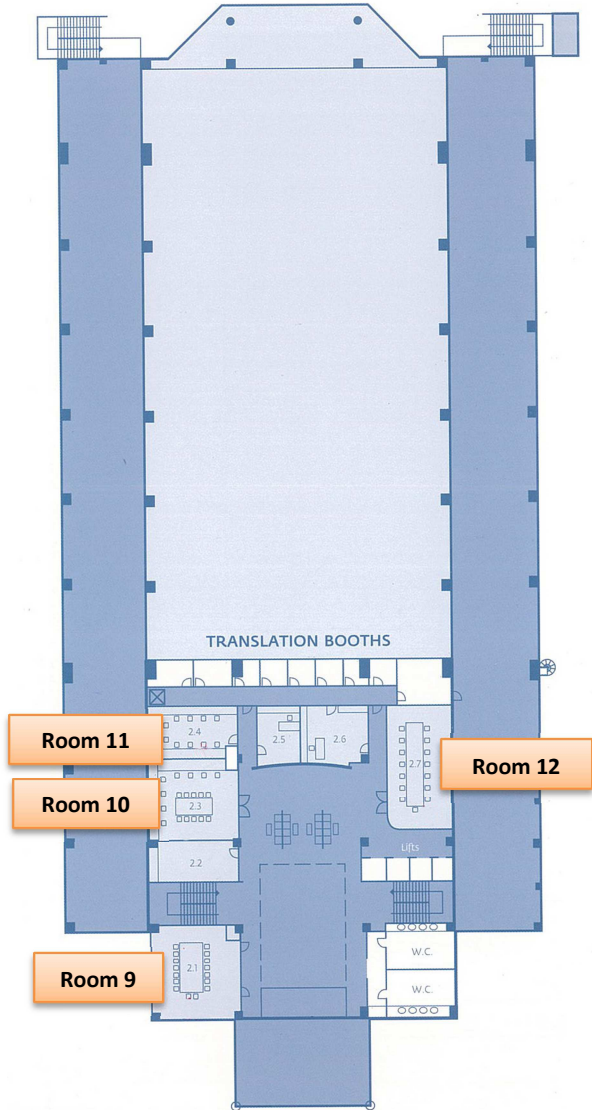


## Conference Information Room Location

**GROUND FLOOR**



**MEZZANINE FLOOR**



## Greetings from the Co-Chairmen

Welcome to the joint 4<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering - COMPDYN 2013 and the 3<sup>rd</sup> South East European Conference on Computational Mechanics - SEECM III on the island of Kos.

**COMPDYN 2013**, one of the thematic Conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS), is a Special Interest Conference of the International Association for Computational Mechanics (IACM) and has been promoted by the European Committee on Computational Solid and Structural Mechanics (ECCSM) of ECCOMAS. The purpose of the Conference is to bring together the scientific communities of Computational Mechanics, Structural Dynamics and Earthquake Engineering in an effort to facilitate the exchange of ideas in topics of mutual interests and to serve as a platform for establishing links between research groups with complementary activities. The communities of Structural Dynamics and Earthquake Engineering will benefit from this interaction, acquainting them with advanced computational methods and software tools which can highly assist in tackling complex problems in dynamic/seismic analysis and design, while also giving the Computational Mechanics community the opportunity to become more familiar with very important application areas of great social interest. The COMPDYN 2013 Conference is supported by the National Technical University of Athens (NTUA), the European Association for Structural Dynamics (EASD), the European Association for Earthquake Engineering (EAEE), the Greek Association for Computational Mechanics (GRACM) and the John Argyris Foundation.

**SEECM III**, is a special interest conference of ECCOMAS and IACM. Following the growing success of International and National Conferences on Computational Mechanics worldwide, the National Associations of Computational Mechanics of the South-East European countries decided to launch an initiative to promote achievements in Computational Mechanics in the South-East European Region. The first conference of this series was held at Kragujevac, Serbia in 2006 and the second on the island of Rhodes, Greece in 2009. The purpose of the Conference is to encourage research and development among young researchers, stimulate education in Universities and disseminate modern trends amongst scientists and engineers in the growing field of Simulation-Based Engineering Sciences. The SEECM III Conference is supported by the National Technical University of Athens, Greece, the University of Kragujevac, Serbia, the Middle East Technical University, Turkey, the Greek Association for Computational Mechanics, the Serbian Association for Computational Mechanics, the Turkish National Committee on Theoretical and Applied Mechanics and the John Argyris Foundation.

Welcome to Kos, one of the most historic islands of the Dodecanese complex, located in the southeast part of Aegean sea. The island flourished during the Minoan and Mycenaean Periods and took part in the Trojan War with 30 ships. Kos is the birthplace of Hippocrates, a physician of the Golden Age of Pericles, founder of the Hippocrates School of Medicine and father of Western Medicine.

The organizers would like to thank the authors for submitting their contributions and for their respect of the deadlines. Special thanks go to the 110 colleagues who contributed to the organization of the Minisymposia and to the Referees who, with their work, contributed to the scientific quality of the conference. We want to express our gratitude to all of them and in particular, we want to thank the research associates of the Institute of Structural Analysis and Antiseismic Research at the NTUA for providing assistance in the lecture rooms.

The subject of the conferences and the idyllic location offer a perfect blend for scientific endeavor and recreation. Thus, we invite you to enjoy the conference and the Island of Kos and to experience an unforgettable event.

**Manolis Papadrakakis**

Chairman of COMPDYN 2013  
Co-Chairman of SEECM III

**Milos Kojic**

**Ismail Tuncer**

Co-Chairmen of SEECM III

## Table of Contents

COMPDYN 2013 Committees .....	11
III SEECCM Committees .....	12
Conference Guide	
Plenary Lecturers .....	13
Semi-Plenary Lecturers .....	13
Keynote Lecturers .....	15
Mini Symposia .....	18
Social Programme .....	21
Accompanying Persons Programme .....	21
Where to eat .....	21
Speakers Preparation .....	22
Internet Access .....	22
Transportation .....	22
Conference Hotel Location .....	23
Technical Programme .....	24
Authors Index .....	85

# COMPDYN 2013

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### III SEECCM

#### Scientific Committee

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F. Auricchio, Italy  
I. Avramidis, Greece  
A. Bayraktar, Turkey  
J. Beck, USA  
M. Beer, UK  
M. Bercovier, Israel  
D. Beskos, Greece  
M. Bonnet, France  
A. Boudouvis, Greece  
T. Burczynski, Poland  
A. Calvi, The Netherlands  
J-S. Chen, USA  
R. Codina, Spain  
A. Combescure, France  
J.P. Conte, USA  
G. Deodatis, USA  
P. Diez, Spain  
J. Dolbow, USA  
I. Doltsinis, Germany  
J. Eberhardsteiner, Austria  
M. Erdik, Turkey  
A. Erikson, Sweden  
N. Filipovic, Serbia  
J. Fish, USA  
M. Garbey, USA  
G. Georgiou, Cyprus  
J. Ghaboussi, USA  
D. Givoli, Israel  
U. Gulcat, Turkey  
I. Harari, Israel  
C. Hirsh, Belgium  
A. Huerta, Spain  
T. Hughes, USA  
A. Ibrahimbegovic, France  
C. Soize, France  
J. Soric, Croatia  
K. Spiliopoulos, Greece  
C. Spyrakos, Greece  
G. Stavroulakis, Greece  
P. Steinmann, Germany  
B. Stojanovic, Serbia  
T. Strouboulis, USA  
K. Tamma, USA  
S. Idelsohn, Argentina  
B. Jeremic, USA  
A. Kappos, Greece  
S. Karamanos, Greece  
G. Karniadakis, USA  
A. Kayran, Turkey  
K. Kirkkopru, Turkey  
M. Kotsovos, Greece  
S. Krenk, Denmark  
P. Ladevese, France  
G. R. Liu, USA  
W.K. Liu, USA  
H. Mang, Austria  
H.G. Matthies, Germany  
E. Mistakidis, Greece  
N. Moes, France  
J.F. Molinari, Switzerland  
C. Mota Soares, Portugal  
R. Ohayon, France  
M. Ohsaki, Japan  
E. Onate, Spain  
R. Owen, UK  
S.J. Pantazopoulou, Cyprus  
C. Papadimitriou, Greece  
P. Papadopoulos, USA  
P. Papanastasiou, Cyprus  
K-C. Park, USA  
U. Perego, Italy  
D. Peric, UK  
J.H. Prevost, USA  
E. Ramm, Germany  
E. Rank, Germany  
Z. Ren, Slovenia  
C. Sansour, UK  
F. Scarpa, UK  
B. Schrefler, Italy  
†G. Schuëller, Austria  
E. Theotokoglou, Greece  
M.F. Unal, Turkey  
D. Vandepitte, Belgium  
W.A. Wall, Germany  
P. Wriggers, Germany  
T. Yabe, Japan  
G. Yagawa, Japan  
Y. Yaman, Turkey  
M. Zivkovic, Serbia  
T. Tezduyar, USA

#### Organizing Committee

M. Papadrakakis, *National Technical University of Athens, Greece*  
M. Kojic, *Serbian Academy of Sciences and Arts, Serbia*  
I. Tuncer, *Middle East Technical University, Turkey*  
N. Lagaros, *National Technical University of Athens, Greece*  
V. Papadopoulos, *National Technical University of Athens, Greece*  
G. Stefanou, *National Technical University of Athens, Greece*  
J. Tsompanakis, *Technical University of Crete, Greece*

# Conference Guide

## Programme Format

The Technical Programme consists of 6 plenary lectures, 12 semi-plenary lectures, 27 keynote lectures, 48 minisymposia with more than 520 presentations in total.

## PLENARY LECTURERS

**Chen Jiun-Shyan, Hillman Mike, Roth Jason, Chi Sheng-Wei, Slawson Thomas, Danielson Kent**

**S 2080** STABILIZED AND REGULARIZED MESHFREE METHOD FOR FRAGMENT-IMPACT MODELING

*Session: Wed 09:00 – 11:00, Room 1*

**Combescure Alain, Réthoré J., Elguedj T., Caleyron F., Haboussa D**

**C 1742** NUMERICAL SIMULATION OF DYNAMIC FAILURE UNDER EXTREME LOADS

*Session: Wed 09:00 – 11:00, Room 1*

**Ramm Ekkehard, Bischoff Manfred**

**S 2153** HIERARCHIC ISOGOMETRIC ANALYSIS FOR SHELL STRUCTURES

*Session: Fri 11:00 – 13:00, Room 1*

**Steinmann Paul**

**S 2149** ASPECTS OF THE MODELLING AND SIMULATION OF MULTIFUNCTIONAL POLYMERS

*Session: Fri 11:00 – 13:00, Room 1*

**Tamma Kumar, Shimada Masao**

**C 1732** THE TIME DIMENSION AND INTEGRATORS: ISOCHRONOUS INTEGRATORS AND IMPLICIT/EXPLICIT FRAMEWORK FOR COMPUTATIONAL DYNAMICS AND SCIENCE AND ENGINEERING PROBLEMS

*Session: Fri 11:00 – 13:00, Room 1*

**Yoshimura Shinobu, Kawai Hiroshi, Sugimoto Shin-ichiro, Murotani Kohei, Miyamura Tomoshi, Yamada Tomonori**

**C 1734** FULL SCALE SEISMIC RESPONSE SIMULATION OF NUCLEAR POWER PLANT USING K-COMPUTER

*Session: Wed 09:00 – 11:00, Room 1*

## SEMI - PLENARY LECTURERS

**Givoli Dan, Amit Eyal, Turkel Eli**

**C 1166** TIME REVERSAL AS A TOOL FOR SOLVING INVERSE PROBLEMS

*Session: Thu 11:00 – 13:00, Room 1*

**Harari Isaac, Grosu Eran**

**C 1480** EMBEDDED BOUNDARY CONDITIONS FOR THIN PLATES

*Session: Thu 14:30 – 16:30, Room 1*

**Hori Muneo, Tanaka Seizo, Ichimura Tsuyoshi, Lalith Maggededaera, Miyamura Tomoshi, Ogino Masao, Okazawa Shigenobu**

**C 1728** APPLICATION OF HPC TO EARTHQUAKE ENGINEERING - SEISMIC STRUCTURE RESPONSE ANALYSIS AND URBAN AREA EARTHQUAKE SIMULATION

*Session: Thu 14:30 – 16:30, Room 4*

**Idelsohn Sergio, Oñate Eugenio, Nigro Norberto, Marti Julio, Becker Pablo, Gimenez Juan**

**S 2151** PARTICLE METHODS: THE BEST SOLUTION FOR COMPUTATIONAL FLUID DYNAMIC PROBLEMS

*Session: Thu 11:00 – 13:00, Room 1*

**Jensen Hector, Vergara Camila**

**C 1421** THE USE OF BAYESIAN MODEL UPDATING IN STOCHASTIC DESIGN PROBLEMS

*Session: Thu 11:00 – 13:00, Room 4*

**Jeremic Boris**

**C 1749** EARTHQUAKE SOIL STRUCTURE INTERACTION FOR NUCLEAR POWER PLANTS, MODELING AND COMPUTATIONAL ISSUES

*Session: Thu 11:00 – 13:00, Room 4*

**Matthies Hermann**

**S 2087** INVERSE AND IDENTIFICATION PROBLEMS IN CONTINUUM MECHANICS

*Session: Thu 14:30 – 16:30, Room 1*

**Moës Nicolas**

**S 2152** TRANSITION FROM DAMAGE TO FRACTURE WITH THE THICK LEVEL SET MODEL

*Session: Thu 14:30 – 16:30, Room 1*

**Ohsaki Makoto**

**C 1423** OPTIMIZATION APPROACHES TO SEISMIC PERFORMANCE DESIGN OF BUILDING FRAMES

*Session: Thu 14:30 – 16:30, Room 4*

**Park K. C., Cho S. S., Huh H.**

**C 1214** RECENT DEVELOPMENTS IN DISCONTINUOUS WAVE PROPAGATION ALGORITHMS: THERE IS PLENTY ROOM FOR IMPROVING SECOND-ORDER METHODS

*Session: Thu 11:00 – 13:00, Room 1*

**Rank Ernst, Bog Tino, Kollmannsberger Stefan, Özcan Ali, Ruess Martin**

**S 2078** INTEGRATING BOUNDARY REPRESENTATION, SOLID MODELING AND STRUCTURAL ANALYSIS

*Session: Thu 14:30 – 16:30, Room 4*

**Stavriniadis Constantinos**

**C 1744** CHALLENGES IN SPACE VEHICLE STRUCTURAL DYNAMICS

*Session: Thu 11:00 – 13:00, Room 4*

## KEYNOTE LECTURERS

**Adhikari Sondipon, Gilchrist Daniel, Murmu Tony, McCarthy Michael**

**C 1722** NONLOCAL MODAL ANALYSIS FOR NANOSCALE DYNAMICAL SYSTEMS

*Session: Thu 17:00 – 19:00, Room 1*

**Antonopoulos Themistocles, Anagnostopoulos Stavros**

**C 1119** IMPROVING THE SEISMIC PERFORMANCE OF EXISTING OLD PILOTIS TYPE BUILDINGS BY STRENGTHENING ONLY THE GROUND STORY

*Session: Wed 17:00 – 19:00, Room 1*

**Cartmell Matthew**

**C 1643** APPLICATIONS FOR MOTORISED MOMENTUM EXCHANGE TETHERS

*Session: Thu 17:00 – 19:00, Room 5*

**Caetano Elsa, Martins Nuno, Cunha Álvaro**

**C 1340** CHARACTERISATION OF THE AERODYNAMIC BEHAVIOUR OF THE BRAGA STADIUM SUSPENSION ROOF FROM PROTOTYPE MONITORING

*Session: Wed 11:30 – 13:00, Room 7*

**Syrakos Alexandros, Georgiou Georgios, Alexandrou Andreas**

**S 2010** SOLUTION OF VISCOPLASTIC FLOWS WITH THE FINITE VOLUME/MULTIGRID METHOD

*Session: Thu 08:30 – 10:30, Room 7*

**de Klerk Dennis**

**C 1731** A GENERAL FRAMEWORK FOR DYNAMIC SUBSTRUCTURING; REVIEW, HISTORY AND THEORY

*Session: Fri 09:00 – 10:30, Room 11*

**van Nimmen Katrien, van den Broeck Peter, Lombaert Geert, de Roeck Guido**

**C 1028** CHARACTERISATION OF WALKING LOADS FROM INERTIAL MOTION TRACKING

*Session: Fri 14:30 – 16:30, Room 6*

**Kouris Leonidas, Kappos Andreas**

**C 1043** DERIVATION OF FRAGILITY CURVES FOR TRADITIONAL TOWER-FRAMED MASONRY BUILDINGS USING NONLINEAR STATIC ANALYSIS

*Session: Thu 08:30 – 10:30, Room 11*

**Milosevic Miljan, Kojic Milos, Kojic Nikola, Ferrari Mauro, Ziemys Arturas**

**S 2148** MULTISCALE MODELING OF MOLECULAR DIFFUSION IN TISSUE

*Wed 11:30 – 13:00, Room 8*

**Kollmannsberger Stefan, Reali Alessandro, Özcan A., Ruess M., Baiges J., Rank Ernst**

**S 2061** PARAMETER FREE WEAK BOUNDARY AND COUPLING CONDITIONS FOR IGA

*Session: Wed 17:00 – 19:00, Room 4*

**Krenk Steen, Nielsen Martin**

**C 1637** RIGID BODY TIME INTEGRATION BY CONVEXIFIED BASE VECTORS WITH IMPLICIT CONSTRAINTS

*Session: Fri 14:30 – 16:30, Room 3*



*Sibgatullin Timur, Schreiber David, Krylov Slava*

**C 1501** EXCITATION OF PARAMETRIC RESONANCE IN MICRO BEAMS BY JOULE'S HEATING

*Session: Fri 09:00 – 10:30, Room 12*

*Littlefield David, Walls Kenneth, Danielson Kent*

**S 2124** FURTHER DEVELOPMENTS IN A LOAD HISTORY GENERATOR TO COUPLE EPIC AND LS-DYNA

*Session: Fri 17:00 – 19:00, Room 1*

**Lurie Konstantin**

**C 1165** DYNAMIC MATERIALS AS MEDIA NATURAL FOR DYNAMICS

*Session: Thu 17:00 – 19:00, Room 12*

*Makris Nicos, Vassiliou Michalis*

**C 1083** ROCKING RESPONSE AND STABILITY ANALYSIS OF AN ARRAY OF FREE-STANDING COLUMNS CAPPED WITH A FREE-STANDING RIGID BEAM

*Session: Fri 09:00 – 10:30, Room 1*

*Manos George, Petalas Apostolos, Demosthenous Milton*

**C 1102** NUMERICAL AND EXPERIMENTAL STUDY OF THE ROCKING RESPONSE OF UNANCHORED BODY TO HORIZONTAL BASE EXCITATION

*Session: Thu 17:00 – 19:00, Room 3*

**Mazzolani Federico**

**C 1651** EARTHQUAKE PROTECTION OF HISTORICAL BUILDINGS ACCORDING TO PROHITECH

*Session: Fri 09:00 – 10:30, Room 7*

*Olhoff Niels, Niu Bin, Cheng Gengdong*

**C 1490** ON OPTIMUM DESIGN AND PERIODICITY OF BAND-GAP STRUCTURES

*Session: Fri 17:00 – 19:00, Room 9*

*Pardalopoulos Stylianos, Kontari Maria, Pantazopoulou Stavroula*

**C 1507** ANALYTICAL PROCEDURE FOR SEISMIC ASSESSMENT OF MASONRY BUILDINGS WITH HISTORICAL VALUE

*Session: Thu 08:30 – 10:30, Room 11*

*Psycharis Ioannis, Fragiadakis Michalis, Stefanou Ioannis*

**C 1442** SEISMIC RELIABILITY ASSESSMENT OF CLASSICAL COLUMNS SUBJECTED TO NEAR SOURCE GROUND MOTIONS

*Session: Fri 14:30 – 16:30, Room 7*

*Auricchio Ferdinando, Beirão da Veiga Lourenco, Hughes Thomas JR, Reali Alessandro, Sangalli Giancarlo*

**S 2029** ISOGEOMETRIC COLLOCATION METHODS FOR ELASTOSTATICS AND EXPLICIT DYNAMICS

*Session: Wed 14:30 – 16:30, Room 4*

*Kampitsis Andreas, Sapountzakis Evangelos, Giannakos Spyros, Gerolymos Nikos*

**C 1067** SEISMIC SOIL-PILE INTERACTION - INFLUENCE OF SOIL INELASTICITY

*Session: Wed 14:30 – 16:30, Room 11*

**Soroushian Aram**

**C 1413** A SIMPLE APPROACH TOWARDS FURTHER ACCURACY IN STRUCTURAL DYNAMIC ANALYSIS

*Session: Wed 17:00 – 19:00, Room 7*

**Spyrakos Constantine, Francioso Alessio, Kiriakopoulos , Panagiotis, Papoutsellis Stavros**

**C 1702** SEISMIC EVALUATION OF THE HISTORIC CHURCH OF ST.NICHOLAS IN PIRAEUS BEFORE AND AFTER INTERVENTIONS

*Session: Fri 17:00 – 19:00, Room 10*

**Leblebici Engin, Ahmet Gökhan, Tuncer İsmail Hakkı**

**S 2070** UNSTEADY ATMOSPHERIC TURBULENT FLOW SOLUTIONS COUPLED WITH A MESOSCALE WEATHER PREDICTION MODEL

*Session: Fri 14:30 – 16:30, Room 9*

**Dougka Georgia, Dimakogianni Danai, Vayas Ioannis, Karydakis Phaedon**

**C 1076** SEISMIC BEHAVIOUR OF INNOVATIVE ENERGY DISSIPATION SYSTEMS *FUSEIS* 1-1

*Session: Thu 08:30 – 10:30, Room 2*

**Wijker Jaap, Ellenbroek Marcel, de Boer Andre**

**C 1041** CHARACTERIZATION AND SYNTHESIS OF RANDOM ACCELERATION VIBRATION SPECIFICATIONS

*Session: Thu 08:30 – 10:30, Room 5*

## Minisymposia

### COMPdyn 2013

**MS 1: PROGRESS AND CHALLENGES IN PERFORMANCE-BASED EARTHQUAKE ENGINEERING**

Farzin Zareian, Dimitrios Lignos

**MS 2: COMPUTATIONAL CONTACT MECHANICS - SEISMIC INTERACTION (POUNDING) BETWEEN ADJACENT STRUCTURES**

Asterios Liolios, George Hatzigeorgiou, George Stavroulakis

**MS 3: PROGRESS AND CHALLENGES IN SPACECRAFT STRUCTURAL DYNAMICS**

Adriano Calvi, Guglielmo Aglietti

**MS 4: PERFORMANCE-BASED ENGINEERING AND RELIABILITY-BASED DESIGN**

Michele Barbato, Enrico Tubaldi

**MS 5: CONTROL OF VIBRATIONS IN CIVIL ENGINEERING BY PASSIVE, ACTIVE AND SEMI-ACTIVE DEVICES**

Rui Carneiro Barros, Alessandro Baratta

**MS 6: LOW COST METHODS FOR ROBUST DESIGN IN STRUCTURAL DYNAMICS AND VIBROACOUSTICS**

Noureddine Bouhaddi, Mohamed Ichchou

**MS 7: DYNAMIC EFFECTS ON HIGH-SPEED RAILWAY TRACKS**

Rui Calcada, Reimundo Delgado

**MS 8: RESILIENCE BASED-DESIGN OF COMMUNITIES AND INFRASTRUCTURES**

Gian Paolo Cimellaro

**MS 9: WIND EFFECTS ON STRUCTURES**

Álvaro Cunha, Elsa Caetano

**MS 10: SEISMIC ANALYSIS AND DESIGN OF INDUSTRIAL FACILITIES AND PIPELINES**

Spyros Karamanos, Panos Dakoulas, Vissarion Papadopoulos, Michalis Fragiadakis

**MS 11: PROBABILISTIC METHODS IN DESIGN AND ASSESSMENT OF STRUCTURES: CONCEPTS AND APPLICATIONS**

Matjaz Dolšek, Dimitrios Vamvatsikos

**MS 12: ADVANCES IN NUMERICAL METHODS FOR LINEAR AND NON-LINEAR DYNAMICS**

Alexander Idesman

**MS 13: DYNAMIC SOIL STRUCTURE INTERACTION MODELING AND SIMULATION**

Boris Jeremic, Mahdi Taiebat

**MS 14: SEISMIC ASSESSMENT AND RETROFIT OF BRIDGES**

Andrea Kappos, S.E. Dritsos

**MS 15: NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS**

George Manos

**MS 16: RECENT ADVANCES IN EXPERIMENTAL PILE DYNAMICS & SOIL-STRUCTURE INTERACTION**

George Mylonakis, Masato Saitoh

**MS 17: RISK ASSESSMENT AND QUANTIFICATION IN ENGINEERING: A MULTI-DISCIPLINARY PERSPECTIVE**

Edoardo Patelli, Ioannis Kougioumtzoglou, Arvid Naess

**MS 18 : SEISMIC ASSESSMENT OF HERRITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION**

Stavroula Pantazopoulou

**MS 19: IDENTIFICATION METHODS IN STRUCTURAL DYNAMICS**

Costas Papadimitriou

**MS 20: SEISMIC BEHAVIOUR AND DESIGN OF PRECAST STRUCTURES**

Ioannis Psycharis

**MS 21: SEISMIC BEHAVIOUR AND RETROFITTING OF MONUMENTS AND HISTORICAL BUILDINGS**

Ioannis Psycharis

**MS 22: ADVANCES IN COMPUTATIONAL METHODS FOR RESILIENT STRUCTURAL SYSTEMS UNDER EXTREME HAZARDS**

James Ricles, Theodore Karavasilis

**MS 23: ADVANCES IN STRUCTURAL VIBRATIONS**

Evangelos Sapountzakis

**MS 24: ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS**

Dan Givoli, Seriani Geza

**MS 25: SOFTWARE DEVELOPMENT IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS**

Anastasios Sextos

**MS 26: COMPUTATIONAL MULTIBODY SYSTEM DYNAMICS**

Ahmed Shabana, Dan Negrut, Hiroyuki Sugiyama

**MS 27: UNCERTAINTY QUANTIFICATION IN COMPUTATIONAL DYNAMICS**

Christian Soize, Roger Ghanem, Gerhart Schueller

**MS 28: PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS**

Sergey Sorokin

**MS 29: ACCURACY AND COMPUTATIONAL EFFICIENCY IN DYNAMIC/SEISMIC STRUCTURAL ANALYSIS**

Aram Soroushian

**MS 32: SEISMIC ANALYSIS AND DESIGN OF IRREGULAR BUILDINGS**

Arturo Tena-Colunga

**MS 33: STEEL AND COMPOSITE STEEL REINFORCED CONCRETE STRUCTURES UNDER DYNAMIC AND SEISMIC LOADING**

Ioannis Vayas

**MS 35: HIGH-PERFORMANCE COMPUTING FOR STRUCTURAL MECHANICS AND EARTHQUAKE ENGINEERING**

Shinobu Yoshimura, Muneo Hori, Makoto Ohsaki

**MS 36: SEISMIC SAFETY ASSESSMENT OF STRUCTURES**

Raimundo Delgado, Antonio Arede, Pedro Delgado

**MS 38: HUMAN INDUCED VIBRATIONS**

Guido De Roeck, Peter van den Broeck, Vitomir Racic

**MS 39: RECENT ADVANCES AND CHALLENGES IN GEOTECHNICAL EARTHQUAKE ENGINEERING**

Castorina Silva Vieira, Yiannis Tsompanakis

**MS 40: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES**

Božidar Stojadinović, Nikos Makris

**MS 41: BRICK-INFILLED RC FRAMES: SEISMIC BEHAVIOR AND RETROFIT**

Constantine Spyrakos, Panagiotis Asteris

**MS 42: RELIGIOUS MONUMENTS: SEISMIC BEHAVIOR AND RETROFIT**

Constantine Spyrakos, Panagiotis Asteris

**III SEECCM**

**MS 1: MESHLESS METHODS**

Ferdinando Auricchio, Domenico Asprone

**MS 5: MESHFREE AND PARTICLE METHODS FOR SEVERE LOADINGS**

Kent Danielson, J-S Chen, Sheng-Wei Chi, David Littlefield, Jason Roth

**MS 6: COMPUTATIONAL MODELING OF CARDIOVASCULAR DISEASES**

Nenad Filipovic, Dimitris Fotiadis, Themis Exarchos

**MS 8: COMPUTATIONAL NON-NEWTONIAN FLUID MECHANICS**

Georgios Georgiou, Kostas Housiadas

**MS 10: SOME INTERACTION PROBLEMS IN COMPUTATIONAL MECHANICS**

Ulgen Gulcat

**MS 12: NUMERICAL IMPLEMENTATION ON CONSTITUTIVE MODELS**

Spyros Karamanos

**MS 15: COMPUTATIONAL CONTACT MECHANICS**

Nicolas Moës, Guillaume Anciaux, Marco Paggi

**MS 17: ISOGOMETRIC METHODS**

Alessandro Reali, Ferdinando Auricchio

**MS 22: THE MULTISCALE STOCHASTIC FINITE ELEMENT METHOD**

George Stefanou, George Deodatis, Vissarion Papadopoulos, Manolis Papadrakakis

**MS 24: PROBLEMS WITH HETEROGENEOUS MATERIALS**

Hermann Matthies, Radovan Slavković, Miroslav Živković, Bojana Rosic

## Social Programme

The Social Programme includes a Welcome Reception and Dinner. The Conference Dinner is not included in the reduced students' fee. The Welcome Reception is scheduled on June 11<sup>th</sup> at 19:00. It will take place at the Olympic Swimming Pool of the Kipriotis Village Resort. The Conference Dinner will be held on Thursday June 13<sup>th</sup> at 20:30 at the Main Swimming Pool of the Kipriotis Panorama Hotel & Suites. Shuttle bus service will be provided from KICC to Panorama Hotel & Suites.

## Accompanying Persons Programme

The accompanying persons' programme features a number of guided tours:

- **Cultural City Tour and Zia Settlement** (duration: approximately 4 hours)  
Price per person: 40.00 € (with lunch: 55.00 €)
- **One-day excursion by boat to Kalymnos-Plati-Pserimos**  
Price per person (including escorting and barbecue on board: 40.00 €)
- **One-day excursion by boat to volcanic island Nissyros**  
Price per person (pickup, guiding, transfer and volcano entry included): 40.00 € (with lunch: 50.00 €)
- **One-day excursion by boat to Bodrum, Turkey**  
Price per person: 40.00 € (with lunch: 58.00 €)

Reservations can be made through the appointed Travel Agent Nostalgia Travel:  
[nostalgia@nostalgia.gr](mailto:nostalgia@nostalgia.gr), Tel.: (+30) 22420 27531.

## Where to eat

Participants may have lunch at the hotel restaurants or cafeterias that will operate during the conference.

## Speakers Preparation

Each lecture room is equipped with an LCD projector. We recommend that you confirm the compatibility of your laptop with the provided projector well before the beginning of the session.

## Internet Access

Wireless internet access will be available at the Kipriotis Conference Center during the conference.

## Transportation

**Transfer from and to the Airport:** The Hippocrates Airport of Kos is located 24 km, southwest of Kos Town and 28 km from the Conference Venue. Bus transfers from and to the airport will be provided upon request on Tuesday, June 11<sup>th</sup> and Saturday, June 15<sup>th</sup> by the Nostalgia Travel with a fare of 15€ each way.

**To get around Kos island:** public municipal transportations, taxis and, for rent, cars, motorbikes and bicycles. Taxi service is available either at the reception desk of the Conference Hotel or by phone to Taxi Telephone Center: (+30) 22420 22777, (+30) 22420 23333-4 & (+30) 22420 21666  
Municipal Transportation (D.E.A.S.): tel. (+30) 22420 26276  
Intercity Busses (KTEL): Tel. (+30) 22420 22292

# Kos Island



# Conference Venue





## DAY 1 - WEDNESDAY, JUNE 12

Wed 08:00 – 08:45	REGISTRATION	
Wed 08:45 – 09:00	OPENING	
Wed 09:00 – 11:00	PLENARY LECTURES - I	
	<p><i>Chair: E. Ramm</i></p> <p><b>C 1734</b> FULL SCALE SEISMIC RESPONSE SIMULATION OF NUCLEAR POWER PLANT USING K-COMPUTER  <i>Yoshimura Shinobu, Kawai Hiroshi, Sugimoto Shin-ichiro, Murotani Kohei, Miyamura Tomoshi, Yamada Tomonori</i></p> <p><b>S 2080</b> STABILIZED AND REGULARIZED MESHFREE METHOD FOR FRAGMENT-IMPACT MODELING  <i>Chen Jiun-Shyan, Hillman Mike, Roth Jason, Chi Sheng-Wei, Slawson Thomas, Danielson Kent</i></p> <p><b>C 1742</b> NUMERICAL SIMULATION OF DYNAMIC FAILURE UNDER EXTREME LOADS  <i>Combescure Alain, Réthoré J., Elguedj T., Caleyron F., Haboussa D.</i></p>	Room 1
Wed 11:00 – 11:30	Coffee Break	
Wed 11:30 – 13:00	TECHNICAL SESSIONS	
Wed 11:30 – 13:00	<p><b>COMPDYN MS 11: PROBABILISTIC METHODS IN DESIGN AND ASSESSMENT OF STRUCTURES: CONCEPTS AND APPLICATIONS - I</b>  <i>Minisymposium Organizers: M. Dolšek, D. Vamvatsikos</i>  <i>Chair: M. Dolšek</i></p> <p><b>C 1134</b> SEISMIC BEHAVIOR OF DAMAGED BUILDINGS: A COMPARISON OF STATIC AND DYNAMIC NONLINEAR APPROACH  <i>Polese Maria, Gaetani D'Aragona Marco, Prota Andrea, Manfredi Gaetano</i></p> <p><b>C 1136</b> RECENT DEVELOPMENTS AND UNCERTAINTY ASPECTS IN THE PERFORMANCE BASED DESIGN OF STRUCTURES FOR WIND  <i>Petrini Francesco, Gkoumas Konstantinos, Bontempi Franco</i></p> <p><b>C 1190</b> INVESTIGATION INTO ANALYTICAL VULNERABILITY CURVES DERIVATION ASPECTS CONSIDERING MODELING UNCERTAINTY FOR INFILLED RC BUILDINGS  <i>Meslem Abdelghani, D'Ayala Dina</i></p> <p><b>C 1226</b> DEAGGREGATION OF SEISMIC SAFETY IN THE DESIGN OF THE REINFORCED CONCRETE BUILDINGS USING EUROCODE 8  <i>Žižmond Jure, Dolšek Matjaž</i></p> <p><b>C 1249</b> APPLICATION OF THE RISK-BASED SEISMIC DESIGN PROCEDURE TO A REINFORCED CONCRETE FRAME BUILDING  <i>Lazar Nuša, Dolšek Matjaž</i></p>	Room 1

## DAY 1 - WEDNESDAY, JUNE 12

Wed 11:30 – 13:00	<p><b>COMPdyn MS 14: SEISMIC ASSESSMENT AND RETROFIT OF BRIDGES - I</b>  <b>Minisymposium Organizers: A. Kappos, S. Dritsos</b>  <b>Chair: A. Kappos</b></p> <p><b>C 1110</b> SPECTRUM RESPONSE AND CODES EVOLUTION CASE STUDY - POST-COMPRESSED GIRDER BRIDGE  <i>Bucur Carmen, Bucur Victor Mircea</i></p> <p><b>C 1111</b> BRIDGES WITH FIXITIES AND BEARINGS VS ISOLATED SYSTEMS  <i>Mitoulis Stergios</i></p> <p><b>C 1465</b> SEISMIC RESPONSE OF BRIDGE ABUTMENTS ON SURFACE FOUNDATION SUBJECTED TO COLLISION FORCES  <i>Argyroudis Sotirios, Mitoulis Stergios, Pitilakis Kyriazis</i></p> <p><b>C 1483</b> PARAMETRIC INVESTIGATION FOR THE OPTIMIZATION OF A LONGITUDINAL SEISMIC RESTRAINING SYSTEM CONSISTING OF STRUTS-TIES FOR CONCRETE BRIDGES  <i>Markogiannaki Olga, Tegos Ioannis</i></p> <p><b>C 1489</b> OPTIMUM SELECTION OF RETROFIT MEASURES FOR R/C BRIDGES USING FRAGILITY CURVES  <i>Stefanidou Sotiria, Kappos Andreas</i></p>	Room 2
Wed 11:30 – 13:00	<p><b>COMPdyn MS 16: RECENT ADVANCES IN EXPERIMENTAL PILE DYNAMICS &amp; SOIL-STRUCTURE INTERACTION</b>  <b>Minisymposium Organizers: G. Mylonakis, M. Saitoh</b>  <b>Chair: D. Pitilakis</b></p> <p><b>C 1370</b> APPLICABILITY OF PRINCIPLE OF SUPERPOSITION IN OBTAINING HORIZONTAL IMPEDANCE FUNCTIONS OF PILE GROUPS UNDER SOIL NON-LINEARITY  <i>Goit Chandra, Saitoh Masato, Mylonakis George</i></p> <p><b>C 1519</b> EXPERIMENTAL AND NUMERICAL INVESTIGATION OF THE SEISMIC BEHAVIOR OF RECTANGULAR TUNNELS IN SOFT SOILS  <i>Tsinidis Grigorios, Pitilakis Kyriazis, Heron Charles, Madabhushi Gopal</i></p> <p><b>C 1546</b> FULL-SCALE TESTING OF A MODEL STRUCTURE IN EUROSEISTEST TO STUDY SOIL-FOUNDATION-STRUCTURE INTERACTION  <i>Pitilakis Kyriazis, Anastasiadis Anastasios, Pitilakis Dimitris, Rovithis Emmanuil</i></p> <p><b>C 1607</b> PILES-INDUCED FILTERING ACTION AND ITS EFFECT ON THE SEISMIC RESPONSE OF BUILDINGS  <i>Caterino Nicola, de Sanctis Luca, di Laora Raffaele, Maddaloni Giuseppe</i></p>	Room 3

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1621</b> PERFORMANCE OF SOIL-PILE-STRUCTURE SYSTEMS UNDER SEISMIC WAVES <i>Durante Maria Giovanna, di Sarno Luigi, Sica Stefania, Mylonakis George, Taylor Colin, Simonelli Armando</i></p> <p><b>C 1619</b> EXPERIMENTAL INVESTIGATION OF DYNAMIC BEHAVIOUR OF CANTILEVER RETAINING WALLS <i>Kloukinas Panos, Scotto di Santolo Anna, Penna Augusto, Bhattacharya Subhamoy, Dietz Matthew, Dihoru Luiza, Evangelista Aldo, Simonelli Armando, Taylor Colin, Mylonakis George</i></p>	
<b>Wed 11:30 – 13:00</b>	<p><b>COMPdyn MS 6: LOW COST METHODS FOR ROBUST DESIGN IN STRUCTURAL DYNAMICS AND VIBROACOUSTICS</b> <i>Minisymposium Organizers: N. Bouhaddi, M. Ichchou</i> <i>Chair: N. Lagaros</i></p> <p><b>C 1155</b> COMBINED APPROXIMATION METHOD APPLIED TO REDUCED NON-LINEAR VIBROACOUSTIC PROBLEMS <i>Gerges Youssef, Sadoulet Reboul Emeline, Ouisse Morvan, Bouhaddi Nouredine</i></p> <p><b>C 1217</b> EFFICIENT CALCULATION OF THE RESPONSE OF A STRUCTURAL ACOUSTIC SYSTEM UNDER AERODYNAMIC EXCITATIONS <i>Chronopoulos Dimitrios, Ichchou Mohamed, Troclet Bernard</i></p> <p><b>C 1279</b> APPROXIMATED DYNAMIC FLEXIBILITY APPLIED TO POWER FLOW MODE COMPUTATIONS <i>Weisser Thomas, Bouhaddi Nouredine</i></p> <p><b>C 1435</b> REDUCTION METHOD APPLIED TO VISCOELASTICALLY DAMPED FINITE ELEMENT MODELS <i>Zghal Souhir, Bouazizi Mohamed Lamjed, Nasri Rachid, Bouhaddi Nouredine</i></p>	<b>Room 4</b>
<b>Wed 11:30 – 13:00</b>	<p><b>COMPdyn MS 20: SEISMIC BEHAVIOUR AND DESIGN OF PRECAST STRUCTURES - I</b> <i>Minisymposium Organizers: I. Psycharis</i> <i>Chair: I. Psycharis</i></p> <p><b>C 1080</b> DESIGN OF ONE STOREY BUILDING WITH PRECAST CONCRETE SANDWICH PANELS IN EARTHQUAKE REGIONS <i>Christou Andreas</i></p> <p><b>C 1430</b> SAFECAST PROJECT: EUROPEAN RESEARCH ON SEISMIC BEHAVIOUR OF THE CONNECTIONS OF PRECAST STRUCTURES <i>Toniolo Giandomenico</i></p>	<b>Room 5</b>

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1443</b> ANALYTICAL PREDICTION OF THE SHEAR RESISTANCE OF PRECAST RC PINNED BEAM-TO-COLUMN CONNECTIONS <i>Kremmyda Georgia, Fahjan Yasin, Psycharis Ioannis</i></p> <p><b>C 1470</b> SEISMIC BEHAVIOUR OF THE BEAM-TO-COLUMN DOWEL CONNECTIONS: FEM ANALYSIS <i>Zoubek Blaz, Fischinger Matej, Isakovic Tatjana</i></p> <p><b>C 1434</b> EARTHQUAKE EXPERIENCE OF TURKISH PRECAST INDUSTRY <i>Ozden Sevket, Barka Gunkut, Atakoy Hakan, Hancioğlu Baykal, Ozkan Umit</i></p>	
Wed 11:30 – 13:00	<p><b>COMPdyn MS 35: HIGH-PERFORMANCE COMPUTING FOR STRUCTURAL MECHANICS AND EARTHQUAKE ENGINEERING</b> <i>Minisymposium Organizers: S. Yoshimura, H. Muneo, M. Ohsaki</i> <i>Chair: S. Yoshimura</i></p> <p><b>C 1128</b> FEM-MPS COUPLED FLUID-STRUCTURE INTERACTION ANALYSIS <i>Naoto Mitsume, Shinobu Yoshimura, Kohei Murotani</i></p> <p><b>C 1154</b> FINITE ELEMENT SIMULATION OF QUAKE PROOF EXPERIMENTS OF QUAKE PROOF EXPERIMENTS OF CONCRETE-STEEL FRAME CONNECTION WITH STUD BOLTS USING ADVENTURE_SOLID VER.2 <i>Yoshimura Shinobu, Miyamura Tomoshi, Sakai Toshiya</i></p> <p><b>C 1205</b> HIGH-PRECISION FINITE-ELEMENT ANALYSIS OF RUBBER BEARING FOR BASE-ISOLATION OF BUILDING STRUCTURES <i>Ohsaki Makoto, Miyamura Tomoshi, Kohiyama Masayuki, Yamashita Takuzo, Yamamoto Masashi, Nakamura Naohiro</i></p> <p><b>C 1494</b> DYNAMIC COLLAPSE ANALYSIS OF FOUR-STORY STEEL FRAME USING E-SIMULATOR <i>Miyamura Tomoshi, Ohsaki Makoto, Yamashita Takuzo, Isobe Daigoro, Kohiyama Masayuki</i></p>	Room 6
Wed 11:30 – 13:00	<p><b>COMPdyn MS 9: WIND EFFECTS ON STRUCTURES</b> <i>Minisymposium Organizers: Á. Cunha, E. Caetano</i> <i>Chair: Á. Cunha</i></p> <p><b>C 1340 KEYNOTE:</b> CHARACTERISATION OF THE AERODYNAMIC BEHAVIOUR OF THE BRAGA STADIUM SUSPENSION ROOF FROM PROTOTYPE MONITORING <i>Caetano Elsa, Martins Nuno, Cunha Álvaro</i></p> <p><b>C 1142</b> NUMERICAL INVESTIGATION OF WIND INDUCED OVALING VIBRATIONS IN SILO GROUPS <i>Hillewaere Jeroen, Degroote Joris, Rezayat Ali, Vanlanduit Steve, Lombaert Geert, Vierendeels Jan, Degrande Geert</i></p>	Room 7

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1200</b> EXPERIENCES IN MODELING WIND LOADING ON PHOTOVOLTAIC (PV) MODULES AND SOLAR COLLECTORS <i>Hemmati Arman, Mohebi Meraj, Wood David, Martinuzzi Robert</i></p> <p><b>C 1339</b> CHARACTERISATION OF THE AERODYNAMIC BEHAVIOUR OF THE GRANDE RAVINE VIADUCT FROM PROTOTYPE MONITORING <i>Bastos Fernando , Caetano Elsa, Cunha Álvaro, Cespedes Xavier, Arquier Mathieu, Flamand Olivier</i></p> <p><b>C 1491</b> WIND CHARACTERISTICS AROUND AND EFFECTS ON A SEA-CROSSING BRIDGE BASED ON MONITORING DATA <i>Sun Limin, Zhou Yi, Min Zhihua</i></p>	
<p><b>Wed 11:30 – 13:00</b></p>	<p><b>COMPdyn MS 1: PROGRESS AND CHALLENGES IN PERFORMANCE-BASED EARTHQUAKE ENGINEERING</b> <i>Minisymposium Organizers: F. Zareian , D. Lignos</i> <i>Chair: V. Papadopoulos</i></p> <p><b>C 1386</b> AN OUTLOOK INTO TIME-DEPENDENT AFTERSHOCK VULNERABILITY ASSESSMENT <i>Ebrahimian Hossein, Jalayer Fatemeh, Asprone Domenico, Lombardi Anna, Marzocchi Warner, Prota Andrea, Manfredi Gaetano</i></p> <p><b>C 1017</b> ACCOUNTING FOR NEAR-SOURCE EFFECTS IN THE DISPLACEMENT COEFFICIENT METHOD FOR SEISMIC STRUCTURAL ASSESSMENT <i>Baltzopoulos Georgios, Chioccarelli Eugenio, Iervolino Iunio</i></p> <p><b>C 1382</b> COLLAPSE CAPACITY SPECTRA BASED ON AN IMPROVED INTENSITY MEASURE <i>Tsantaki Styliani, Adam Christoph</i></p> <p><b>COMPdyn MS 4: PERFORMANCE-BASED ENGINEERING AND RELIABILITY-BASED DESIGN - I</b> <i>Minisymposium Organizers: M. Barbato , E. Tubaldi</i></p> <p><b>C 1204</b> GRADIENT-BASED STUDY ON SEISMIC PERFORMANCE REDUCTION OF STEEL BRACED FRAMES DUE TO IRREGULAR BRACE OVER-STRENGTH DISTRIBUTIONS <i>Dall'Asta Andrea, Zona Alessandro, Ragni Laura</i></p> <p><b>C 1334</b> PREDICTING FLOOR RESPONSE SPECTRA FOR RC FRAME STRUCTURES <i>Lucchini Andrea, Cheng Yin, Mollaioli Fabrizio, Liberatore Laura</i></p>	<p><b>Room 8</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

Wed 11:30 – 13:00	<p><b>SEECM MS 5: MESHFREE AND PARTICLE METHODS FOR SEVERE LOADINGS - I</b>  <b>Minisymposium Organizers:</b> K. Danielson, J-S Chen, S-W Chi, D. Littlefield, J. Roth  <b>Chair:</b> D. Littlefield</p> <p><b>S 2011</b> A POINT-WISE COUPLED FEM/RKPM FORMULATION FOR MODELING FRAGMENTATION OF CONCRETE UNDER HIGH STRAIN RATE LOADINGS  <i>Wu Youcai, Magallanes Joseph, Crawford John</i></p> <p><b>S 2027</b> A COMBINED PARTICLE-ELEMENT METHOD FOR EXPLICIT DYNAMIC COMPUTATIONS  <i>Beissel Stephen, Johnson Gordon</i></p> <p><b>S 2072</b> SECOND ORDER GODUNOV SPH FOR HIGH VELOCITY IMPACT DYNAMICS  <i>Connolly Adam, Iannucci Lorenzo, Hillier R., Pope Dan</i></p> <p><b>C 1585</b> DESIGN AND IMPLEMENTATION OF A LINEAR CONTROLLER ON A REDUCED MODEL OF A SMART STRUCTURE  <i>Ghareeb Nader, Schmidt Ruediger</i></p>	Room 9
Wed 11:30 – 13:00	<p><b>COMPdyn MS 22: ADVANCES IN COMPUTATIONAL METHODS FOR RESILIENT STRUCTURAL SYSTEMS UNDER EXTREME HAZARDS</b>  <b>Minisymposium Organizers:</b> J. Ricles, T. Karavasilis  <b>Chair:</b> J. Ricles</p> <p><b>C 1157</b> DETAILED COMPONENT MODELLING OF A SELF-CENTERING ENERGY DISSIPATIVE BRACE SYSTEM  <i>Erochko Jeffrey, Christopoulos Constantin, Tremblay Robert</i></p> <p><b>C 1245</b> <math>R_V</math>-<math>\mu</math>-<math>T_n</math> RELATIONS FOR SEISMICALLY ISOLATED STRUCTURES  <i>Tsiavos Anastasios, Vassiliou Michalis, Mackie Kevin, Stojadinović Božidar</i></p> <p><b>C 1288</b> MINIMAL-DAMAGE STEEL FRAMES USING POST-TENSIONED CONNECTIONS WITH WEB HOURGLASS SHAPE PINS: DESIGN AND ASSESSMENT  <i>Dimopoulos Athanasios, Karavasilis Theodore, Vasdravellis George, Uy Brian</i></p> <p><b>C 1338</b> COLLAPSE RESISTANCE OF SEISMICALLY RESILIENT SELF-CENTERING STEEL MOMENT RESISTING FRAME SYSTEMS  <i>Ahmadi Omid, Ricles James, Sause Richard</i></p> <p><b>C 1534</b> MONTE CARLO ANALYSIS FOR THE BLAST RESISTANCE DESIGN AND ASSESSMENT OF A REINFORCED CONCRETE WALL  <i>Olmati Pierluigi</i></p>	Room 10

## DAY 1 - WEDNESDAY, JUNE 12

Wed 11:30 – 13:00	<p><b>COMPDYN MS 12: ADVANCES IN NUMERICAL METHODS FOR LINEAR AND NON-LINEAR DYNAMICS</b>  <b>Minisymposium Organizers: A. Idesman</b>  <b>Chair: A. Idesman</b></p> <p><b>C 1079</b> EXTERNAL COUPLING OF FE CODES FOR STRUCTURAL DYNAMIC  <i>Brun Michael, Gravouil Anthony, Combescure Alain, Limam Ali</i></p> <p><b>C 1189</b> FINITE ELEMENT MODELING OF LINEAR ELASTODYNAMICS PROBLEMS WITH EXPLICIT TIME-INTEGRATION METHODS AND LINEAR ELEMENTS WITH REDUCED DISPERSION. COMPARATIVE STUDY OF DIFFERENT FINITE ELEMENT TECHNIQUES USED FOR ELASTODYNAMICS.  <i>Idesman Alexander</i></p> <p><b>C 1422</b> VERIFICATION OF ISOGOMETRIC ANALYSIS IN ELASTIC WAVE PROPAGATION OF STRESS DISCONTINUITIES  <i>Kolman Radek, Plešek Jiří, Okrouhlik Miloslav, Gabriel Dušan, Kopačka Ján</i></p> <p><b>C 1542</b> STUDIES IN NUMERICAL STABILITY OF EXPLICIT CONTACT-IMPACT ALGORITHM TO THE FINITE ELEMENT SOLUTION OF WAVE PROPAGATION PROBLEMS  <i>Kopačka Ján, Gabriel Dušan, Kolman Radek, Plešek Jiří, Ulbin Miran</i></p> <p><b>C 1289</b> APPLICATIONS OF VARIATIONALLY CONSISTENT SELECTIVE MASS SCALING IN EXPLICIT DYNAMICS  <i>Tkachuk Anton, Bischoff Manfred</i></p>	Room 11
Wed 11:30 – 13:00	<p><b>COMPDYN MS 39: RECENT ADVANCES AND CHALLENGES IN GEOTECHNICAL EARTHQUAKE ENGINEERING - I</b>  <b>Minisymposium Organizers: C. Silva Vieira , Y. Tsompanakis</b>  <b>Chair: C. Silva Vieira</b></p> <p><b>C 1059</b> APPLICABILITY OF TOTAL STRESS SEISMIC GROUND RESPONSE ANALYSIS UNDER LARGE EARTHQUAKES  <i>Yoshida Nozomu</i></p> <p><b>C 1074</b> THE STABILITY OF THE GENERALISED-<math>\alpha</math> METHOD IN SOIL-PORE FLUID COUPLED FORMULATION  <i>Han Bo, Zdravković Lidija, Kontoe Stavroula</i></p> <p><b>C 1158</b> EFFECTS OF ARTIFICIAL LANDFORM CHANGE TO WATER PIPELINE DAMAGE IN SENDAI CITY DURING THE 2011 TOHOKU OFFSHORE JAPAN EARTHQUAKE  <i>Wakamatsu Kazue, Nagata Shigeru, Maruyama Yoshihisa</i></p> <p><b>C 1277</b> DYNAMIC SOIL- PILE INTERACTION FOR LARGE DIAMETER MONOPILE FOUNDATIONS  <i>Zania Varvara</i></p>	Room 12

## DAY 1 - WEDNESDAY, JUNE 12

Wed 13:00 – 14:30	Lunch Time	
Wed 14:30 – 16:30	<b>TECHNICAL SESSIONS</b>	
Wed 14:30 – 16:30	<p><b>COMPdyn MS 11: PROBABILISTIC METHODS IN DESIGN AND ASSESSMENT OF STRUCTURES: CONCEPTS AND APPLICATIONS - II</b>  <b>Minisymposium Organizers: M. Dolšek, D. Vamvatsikos</b>  <b>Chair: D. Vamvatsikos</b></p> <p><b>C 1327</b> ISSUES ON THE USE OF TIME-HISTORY ANALYSIS FOR THE DESIGN AND ASSESSMENT OF MASONRY STRUCTURES  <i>Penna Andrea, Rota Maria, Mouyiannou Amaryllis, Magenes Guido</i></p> <p><b>C 1345</b> NEW DAMAGE MODELS FOR PERFORMANCE-BASED EARTHQUAKE ENGINEERING  <i>Haukaas Terje, Javaherian Yazdi Abbas</i></p> <p><b>C 1457</b> RISK ASSESSMENT OF REINFORCED CONCRETE BUILDINGS CONSIDERING THE EARTHQUAKE DIRECTIONALITY EFFECTS  <i>Vargas Alzate Yeudy Felipe, Luis Gonzaga Pujades Beneit, Alex Horia Barbat, Hurtado Gomez Jorge Eduardo</i></p> <p><b>C 1458</b> OPTIMAL RISK-BASED DESIGN OF LINEAR DAMPERS FOR SEISMIC RETROFIT OF BUILDINGS  <i>Tubaldi Enrico, Barbato Michele, Dall'Asta Andrea</i></p> <p><b>C 1466</b> SEISMIC FRAGILITY AND VULNERABILITY ASSESSMENT USING SIMPLIFIED METHODS FOR THE GLOBAL EARTHQUAKE MODEL  <i>Vamvatsikos Dimitrios, Kazantzi Athanasia</i></p> <p><b>C 1689</b> MEASURING BIAS IN INCREMENTAL DYNAMIC ANALYSIS USING BOOTSTRAP  <i>Zacharenaki Athanasia, Fragiadakis Michalis, Papadrakakis Manolis</i></p>	Room 1
Wed 14:30 – 16:30	<p><b>COMPdyn MS 39: RECENT ADVANCES AND CHALLENGES IN GEOTECHNICAL EARTHQUAKE ENGINEERING - II</b>  <b>Minisymposium Organizers: C. Silva Vieira , Y. Tsompanakis</b>  <b>Chair: S. Kontoe</b></p> <p><b>C 1285</b> SITE RESPONSE ANALYSIS FOR VERTICAL GROUND MOTION  <i>Kontoe Stavroula, Christopoulos Antonios, May Robert</i></p> <p><b>C 1378</b> ASSESSMENT OF REINFORCED SLOPES INSTABILITY IN VIEW OF SEMI-ANALYTICAL METHODS  <i>Tzavara Ioanna, Tsompanakis Yiannis, Zania Varvara, Psarropoulos Prodromos</i></p> <p><b>C 1240</b> BEHAVIOUR OF A GEOSYNTHETIC REINFORCED STEEP SLOPE CONSTRUCTED WITH COHESIVE BACKFILL UNDER EARTHQUAKE LOADING  <i>Silva Vieira Castorina, Lopes Maria de Lurdes</i></p>	Room 2



**DAY 1 - WEDNESDAY, JUNE 12**

	<p><b>C 1058</b> 3-D CONVOLUTIONAL PERFECTLY MATCHED LAYER MODELS FOR DYNAMIC SOIL-STRUCTURE INTERACTION ANALYSIS IN THE FINITE ELEMENT TIME-DOMAIN <i>Xu Bo-Qing, Tsang Hing-Ho, Lo S.H.</i></p> <p><b>C 1746</b> OPTIMUM DESIGN OF CANTILEVER WALLS RETAINING LINEAR ELASTIC BACKFILL BY USE OF GENETIC ALGORITHM <i>Papazafeiropoulos George, Plevris Vagelis, Papadrakakis Manolis</i></p>	
<p><b>Wed 14:30 – 16:30</b></p>	<p><b>COMPdyn MS 17: RISK ASSESSMENT AND QUANTIFICATION IN ENGINEERING: A MULTI-DISCIPLINARY PERSPECTIVE - I</b> <i>Minisymposium Organizers: E. Patelli , I. Kougoumtzoglou , A. Naess</i> <i>Chair: E. Patelli</i></p> <p><b>C 1091</b> STOCHASTIC RESPONSE DETERMINATION AND RELIABILITY ASSESSMENT OF A NONLINEAR CABLE NET STRUCTURAL SYSTEM <i>Kougoumtzoglou Ioannis, Vassilopoulou Isabella, Gantes Charis</i></p> <p><b>C 1130</b> SYSTEM RELIABILITY ANALYSIS OF SLENDER NETWORK ARCH BRIDGES <i>Rønnquist Anders, Naess Arvid</i></p> <p><b>C 1131</b> NUMERICAL INVESTIGATION OF THE PARAMETRIC PENDULUM UNDER FILTERED RANDOM PHASE EXCITATION <i>Alevras Panagiotis, Yurchenko Daniil, Naess Arvid</i></p> <p><b>C 1302</b> VISK: A GIS-COMPATIBLE PLATFORM FOR MICRO-SCALE ASSESSMENT OF FLOODING RISK IN URBAN AREAS <i>de Risi Raffaele, Jalayer Fatemeh, Iervolino Iunio, Manfredi Gaetano, Carozza Stefano</i></p> <p><b>C 1112</b> PROBABILISTIC PERFORMANCE-BASED SEISMIC DESIGN OF BRIDGE COLUMNS <i>Saini Amarjeet, Vosooghi Ashkan, Saiidi Mehdi</i></p>	<p><b>Room 3</b></p>
<p><b>Wed 14:30 – 16:30</b></p>	<p><b>SEECM MS 17: ISOGOMETRIC METHODS - I</b> <i>Minisymposium Organizers: A. Reali, F. Auricchio</i> <i>Chair: A. Reali</i></p> <p><b>S 2029 KEYNOTE:</b> ISOGOMETRIC COLLOCATION METHODS FOR ELASTOSTATICS AND EXPLICIT DYNAMICS <i>Auricchio Ferdinando, Beirão da Veiga Lourenco, Hughes Thomas JR, Reali Alessandro, Sangalli Giancarlo</i></p> <p><b>S 2025</b> ISOGOMETRIC COLLOCATION METHODS FOR THIN STRUCTURES <i>Kiendl Josef, Auricchio Ferdinando, Beirão da Veiga Lourenco, Lovadina Carlo, Reali Alessandro</i></p>	<p><b>Room 4</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>S 2047</b> AN ISOGEOMETRIC ANALYSIS APPROACH TO MODEL THE AORTIC VALVE BEHAVIOR <i>Auricchio Ferdinando, Hartmann Stefan, Hughes Thomas JR, Morganti Simone, Reali Alessandro</i></p> <p><b>S 2056</b> THE CHOICE OF QUADRATURE IN NURBS-BASED ISOGEOMETRIC ANALYSIS <i>Calabrò Francesco, Manni Carla</i></p> <p><b>S 2060</b> ISOGEOMETRIC MODELING OF CAROTID ARTERY STENTING: A COMPARISON WITH CLASSIC FINITE ELEMENT APPROACH <i>Auricchio Ferdinando, Conti Michele, Ferraro Mauro, Reali Alessandro</i></p> <p><b>S 2089</b> ISOGEOMETRIC ANALYSIS OF NONLINEAR STRUCTURAL VIBRATIONS <i>Weeger Oliver, Simeon Bernd, Boschert Stefan, Wever Utz</i></p>	
<b>Wed 14:30 – 16:30</b>	<p><b>COMPdyn MS 20: SEISMIC BEHAVIOUR AND DESIGN OF PRECAST STRUCTURES - II</b> <i>Minisymposium Organizer: I. Psycharis</i> <i>Chair: I. Psycharis</i></p> <p><b>C 1471</b> SEISMIC BEHAVIOR OF THE BEAM-TO-COLUMN DOWEL CONNECTIONS: MACRO MODELLING <i>Fischinger Matej, Zoubek Blaz, Isakovic Tatjana</i></p> <p><b>C 1520</b> NUMERICAL MODELING OF SINGLE-STOREY PRECAST FRAME'S PINNED CONNECTIONS WITH A SPECIAL DAMPER <i>Soydan Cihan, Yüksel Ercan, İrtem Erdal</i></p> <p><b>C 1521</b> SINGLE STORY PRECAST STRUCTURES IN SEISMIC ZONES - I <i>Karadogan Faruk, Yüce Serkan, Yüksel Ercan, Bal I.E., Hasel F.B</i></p> <p><b>C 1573</b> SHAKE TABLE TESTING OF A FULL-SCALE FIVE-STORY BUILDING: SEISMIC PERFORMANCE OF PRECAST CONCRETE CLADDING PANELS <i>Pantoli Elide, Chen Michelle, Hutchinson Tara, Underwood Glen, Hildebrand Mark</i></p> <p><b>C 1611</b> SEISMIC PERFORMANCE EVALUATION OF A POST-TENSIONED FRAME BUILDING <i>Hancioğlu Baykal, Kırçıl Murat Serdar, Ulusoy Seyit Ismail</i></p> <p><b>C 1616</b> THE EMILIA EARTHQUAKES: REPORT AND ANALYSIS ON THE BEHAVIOR OF PRECAST INDUSTRIAL BUILDINGS FROM A FIELD MISSION <i>Bournas Dionysios, Negro Paolo, Taucer Fabio</i></p> <p><b>C 1579</b> DEVELOPMENTS AND IMPLEMENTATIONS OF LOW-DAMAGE STRUCTURAL SYSTEMS FOR PRECAST CONCRETE BUILDINGS: RAISING THE BAR TO MEET SOCIETAL EXPECTATIONS <i>Stefano Pampanin</i></p>	<b>Room 5</b>

## DAY 1 - WEDNESDAY, JUNE 12

Wed 14:30 – 16:30	<p><b>COMPDYN MS 5: CONTROL OF VIBRATIONS IN CIVIL ENGINEERING BY PASSIVE, ACTIVE AND SEMI-ACTIVE DEVICES - I</b>  <b>Minisymposium Organizers: R. Barros, A. Baratta</b>  <b>Chair: R. Barros</b></p> <p><b>C 1663</b> COMPARISONS OF A TALL LATTICE WIND TOWER RESPONSE WITH AND WITHOUT A TMD  <i>Henriques Jorge, Barros Rui</i></p> <p><b>C 1068</b> APPROXIMATED GRADIENT BASED SEISMIC DESIGN OF MULTIPLE TUNED-MASS-DAMPERS FOR CONTROL OF IRREGULAR BUILDINGS  <i>Daniel Yael, Lavan Oren</i></p> <p><b>C 1069</b> MODIFICATION OF MODAL PROPERTIES OF A SYSTEM WITH NON-PROPORTIONAL DAMPING DUE TO VIBRATION ABSORBERS AND SUB-SOIL INTERACTION  <i>Náprstek Jiří, Hračov Stanislav</i></p> <p><b>C 1740</b> METHODS TO DESIGN A GUIDED TOWER CONCERNING DYNAMIC BEHAVIOR  <i>Mendonça Cecília, Barros Rui</i></p> <p><b>C 1660</b> COMPARISON OF A CANTILEVER SIGN SUPPORT RESPONSE SUBJECTED TO WIND GUSTS, WITH AND WITHOUT a TMD  <i>Paiva Fábio, Barros Rui</i></p> <p><b>S 2121</b> RESISTANCE OF DOOR OPENINGS IN TOWERS FOR WIND TURBINES  <i>Tran Anh Tuan, Veljkovic Milan, Rebelo Carlos, Simões da Silva Luís</i></p>	Room 6
Wed 14:30 – 16:30	<p><b>COMPDYN MS 27: UNCERTAINTY QUANTIFICATION IN COMPUTATIONAL DYNAMICS - I</b>  <b>Minisymposium Organizers: C. Soize, R. Ghanem, G. Schueller</b>  <b>Chair: G. Stefanou</b></p> <p><b>C 1026</b> UNCERTAINTY ANALYSIS ON A PUMP ASSEMBLY USING COMPONENT MODE SYNTHESIS  <i>Audebert Sylvie, Fall-Lo Fatou</i></p> <p><b>C 1029</b> DYNAMICAL BEHAVIOR OF TRAINS EXCITED BY A NON-GAUSSIAN VECTOR VALUED RANDOM FIELD  <i>Perrin Guillaume, Soize Christian, Duhamel Denis, Funfschilling Christine</i></p> <p><b>C 1034</b> GENERATION OF RESPONSE SPECTRUM COMPATIBLE ACCELEROGRAMS USING THE MAXIMUM ENTROPY PRINCIPLE  <i>Batou Anas, Soize Christian</i></p> <p><b>C 1039</b> UNCERTAINTY QUANTIFICATION OF THE NONLINEAR DYNAMICS OF ELECTROMECHANICAL COUPLED SYSTEMS  <i>de Queiroz Lima Roberta, Sampaio Rubens</i></p>	Room 7

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1044</b> UNCERTAINTIES IN MULTI-STAGE ROTORS MODELED BY THE POLYNOMIAL CHAOS EXPANSION <i>Seguí Bartolomé, Faverjon Béatrice, Jacquet-Richardet Georges</i></p> <p><b>COMPDYN MS 15: NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS - I</b> <b>Minisymposium Organizer: G. Manos</b></p> <p><b>C 1267</b> SHAKING TABLE STUDY OF THE SEISMIC INTERACTION OF AN ISOLATED BRIDGE DECK WITH THE ABUTMENT UTILIZING SMALL-SCALE MODELS AND NUMERICAL SIMULATIONS <i>Mitoulis Stergios, Manos George, Tegos Ioannis</i></p> <p><b>C 1108</b> EXPERIMENTAL RESEARCH ON THE CAPACITY OF BRIDGE <i>Mitoulis Stergios, Tegos Ioannis, Malekakis Andreas</i></p>	
<p><b>Wed 14:30 – 16:30</b></p>	<p><b>COMPDYN MS 14: SEISMIC ASSESSMENT AND RETROFIT OF BRIDGES - II</b> <b>Minisymposium Organizers: A. Kappos, S. Dritsos</b> <b>Chair: S. Dritsos</b></p> <p><b>C 1048</b> EMULATIVE COLUMN-FOOTING CONNECTIONS FOR SEISMIC DESIGN IN ACCELERATED BRIDGE CONSTRUCTION <i>Haber Zachary, Saiidi Saiid, Sanders David</i></p> <p><b>C 1498</b> ASSESSMENT OF EC 8 PROCEDURES FOR THE ASYNCHRONOUS EXCITATION OF BRIDGES BASED ON NUMERICAL ANALYSIS AND RECORDED DATA <i>Papadopoulos Savvas, Lekidis Vassilios, Sextos Anastasios, Karakostas Christos</i></p> <p><b>C 1499</b> STRENGTHENING OF BRIDGE DECKS BY ADDING NEW CONCRETE LAYERS <i>Tsioulou Ourania, Lampropoulos Andreas, Apostolidi Eftychia, Karela Nikoleta, Dritsos Stephanos</i></p> <p><b>C 1506</b> SHEAR STRENGTH ASSESSMENT OF REINFORCED CONCRETE COLUMNS <i>Chasioti Stamatina, Megalooikonomou Konstantinos, Pantazopoulou Stavroula</i></p> <p><b>C 1511</b> NUMERICAL MODELLING OF A FOUR-SPAN BRIDGE, BI-AXIALLY TESTED ON THREE SHAKE TABLES <i>Isakovic Tatjana, Saiidi Saiid, Fischinger Matej</i></p> <p><b>C 1602</b> ASSESSMENT AND DESIGN OF SEISMICALLY ISOLATED BRIDGES IN PROXIMITY OF MAJOR FAULTS AND LOCATED ON LIQUEFIABLE SOILS <i>Cenan Ozkaya, Gercek Mete</i></p> <p><b>C 1603</b> RESTRAINED CONCRETE SHRINKAGE IN CASE OF STRENGTHENED BRIDGE PIERS BY CONCRETE JACKETING <i>Lampropoulos Andreas, Tsioulou Ourania, Dritsos Stephanos</i></p>	<p><b>Room 8</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

<b>Wed 14:30 – 16:30</b>	<p><b>COMPDYN MS 7: DYNAMIC EFFECTS ON HIGH-SPEED RAILWAY TRACKS</b>  <i>Minisymposium Organizers: R. Calcada, R. Delgado</i>  <i>Chair: M. Fragiadakis</i></p> <p><b>C 1051</b> EFFICIENT DYNAMIC INTERACTION ANALYSIS OF HIGH-SPEED TRAIN AND RAILWAY STRUCTURE DURING AN EARTHQUAKE  <i>Tanabe Makoto, Sogabe Masamichi, Wakui Hajime, Matsumoto Nobuyuki, Tanabe Yasuko</i></p> <p><b>C 1127</b> HOW TO QUANTIFY THE VIBRATION REDUCTION OF RAILWAY TRACKS  <i>Auersch Lutz</i></p> <p><b>C 1163</b> HIGH-SPEED TRAIN PASSAGE EFFECTS IN BUILDINGS: VIBRATION ASSESSMENT AND ISOLATION  <i>Romero Ordóñez Antonio, Solís Muñiz Mario, Galvín Barrera Pedro</i></p> <p><b>C 1269</b> A NONLINEAR VEHICLE STRUCTURE INTERACTION METHODOLOGY WITH WHEEL RAIL DETACHMENT AND REATTACHMENT  <i>Montenegro Pedro Aires, Neves Gonçalves Moreira Sérgio, Azevedo Ferreira Marques Álvaro, Calçada Rui</i></p> <p><b>C 1303</b> A SHEET PILING WALL AS A WAVE BARRIER FOR TRAIN INDUCED VIBRATIONS  <i>Dijckmans Arne, Ekblad Alf, Smekal A., Degrande Geert, Lombaert Geert</i></p> <p><b>C 1414</b> A NUMERICAL STUDY OF SUBGRADE STIFFENING AS A MITIGATION MEASURE FOR RAILWAY INDUCED VIBRATIONS THROUGH 2.5D AND 3D FE-BE MODELS  <i>Coulier Pieter, François Stijn, Degrande Geert, Lombaert Geert</i></p>	<b>Room 9</b>
<b>Wed 14:30 – 16:30</b>	<p><b>COMPDYN RS 11: IMPACT DYNAMICS</b>  <i>Chair: V. Plevris</i></p> <p><b>C 1106</b> IMPROVED PHYSICAL MODELING OF ROCK IMPACTS ON PROTECTION BARRIERS USING A GENERAL CONTACT ALGORITHM  <i>Escallón Juan Pablo, Bartelt Perry, Wendeler Corinna, Chatzi Eleni</i></p> <p><b>C 1209</b> TRANSITION FROM DIFFUSE TO LOCALIZED DAMAGE GROWTH WITH A COMBINED THICK LEVEL SET / DELAYED-DAMAGE APPROACH UNDER IMPACT LOADING  <i>Moreau Kévin, Moës Nicolas, Picart Didier</i></p> <p><b>C 1193</b> BLAST RESPONSE OF FIELD OBJECTS  <i>Chen Anqi, Louca Luke, Elghazouli Ahmed</i></p>	<b>Room 10</b>

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>COMPdyn MS 2: COMPUTATIONAL CONTACT MECHANICS - SEISMIC INTERACTION (POUNDING) BETWEEN ADJACENT STRUCTURES</b>  <b>Minisymposium Organizers: A. Liolios, G. Hatzigeorgiou, G. Stavroulakis</b></p> <p><b>C 1425</b> NON-SMOOTH ANALYSIS OF THE EARTHQUAKE-INDUCED POUNDING IN SKEW BRIDGES  <i>Dimitrakopoulos Elias</i></p> <p><b>C 1527</b> POUNDING BETWEEN ADJACENT REINFORCED CONCRETE FRAMED STRUCTURES SUBJECTED TO REPEATED EARTHQUAKES  <i>Efraimiadou Sofia, Hatzigeorgiou George, Beskos Dimitri</i></p> <p><b>C 1699</b> MITIGATION MEASURES FOR SEISMIC POUNDING EFFECTS ON ADJACENT BUILDINGS RESPONSES  <i>Abdel Raheem Shehata E.</i></p>	
Wed 14:30 – 16:30	<p><b>COMPdyn MS 23: ADVANCES IN STRUCTURAL VIBRATIONS - I</b>  <b>Minisymposium Organizer: E. Sapountzakis</b>  <b>Chair: E. Sapountzakis</b></p> <p><b>C 1067 KEYNOTE:</b> SEISMIC SOIL-PILE INTERACTION - INFLUENCE OF SOIL INELASTICITY  <i>Kampitsis Andreas, Sapountzakis Evangelos, Giannakos Spyros, Gerolymos Nikos</i></p> <p><b>C 1030</b> ON PROBLEMS RELATED TO NONLINEAR TRANSIENT DYNAMIC ANALYSIS  <i>Steinbuch Rolf</i></p> <p><b>C 1047</b> INVERSE ANALYSIS FOR DETERMINING THE REINFORCED CONCRETE FLEXURAL STIFFNESS OF A STRUCTURE UNDER STRONG COMPRESSION  <i>Wahrhaftig Alexandre, Brasil Reyolando</i></p> <p><b>C 1121</b> MULTI-SCALE ENERGY PUMPING BETWEEN A MAIN OSCILLATOR INCLUDING SAINT-VENANT TERM AND A NONLINEAR ENERGY SINK  <i>Weiss Mathieu, Ture Savadkoohi Alireza, Lamarque Claude-Henri</i></p> <p><b>C 1463</b> NONLINEAR DYNAMIC ANALYSIS OF PLATES STIFFENED BY PARALLEL BEAMS WITH DEFORMABLE CONNECTION  <i>Dourakopoulos John, Sapountzakis Evangelos</i></p>	Room 11

## DAY 1 - WEDNESDAY, JUNE 12

Wed 14:30 – 16:30	<p><b>SEECM MS 6: COMPUTATIONAL MODELING OF CARDIOVASCULAR DISEASES</b>  <b>Minisymposium Organizers: N. Filipovic, D. Fotiadis, T. Exarchos</b>  <b>Chair: N. Filipovic</b></p> <p><b>S 2148 KEYNOTE: MULTISCALE MODELING OF MOLECULAR DIFFUSION IN TISSUE</b>  <i>Milosevic Miljan, Kojic Milos, Kojic Nikola, Ferrari Mauro, Ziemys Arturas</i></p> <p><b>S 2071 A COMPUTATIONAL STUDY OF THE INJECTION THERAPY FOR MYOCARDIAL INFARCTION DURING THE NECROTIC STAGE</b>  <i>Skatulla Sebastian, Legner Dieter, Rama Ritesh, Mbewu James, Reddy B. D., Davis Neil, Franz Thomas</i></p> <p><b>S 2113 PLAQUE FORMATION MODELING - FROM ANIMAL TO HUMAN STUDIES</b>  <i>Milosevic Zarko, Radovic Milos, Nikolic Dalibor, Saveljic Igor, Isailovic Velibor, Obradovic Milica, Petrovic Dejan, Themis Exarchos, Fotiadis Dimitris, Pelosi Walter, Parodi Oberdan, Kojic Milos, Filipovic Nenad</i></p> <p><b>S 2114 MODELING AND CORRELATION OF PLAQUE SIZE WITH HISTOLOGICAL AND BLOOD ANALYSIS DATA FOR ANIMAL RABBIT EXPERIMENTS</b>  <i>Radovic Milos, Milosevic Zarko, Nikolic Dalibor, Saveljic Igor, Obradovic Milica, Petrovic Dejan, Zdravkovic Nebojsa, Teng Zhongzhao, Bird Joseph, Filipovic Nenad</i></p> <p><b>S 2109 COMPUTATIONAL MODELING OF TRANSPORT OF CELLS AND PARTICLES IN SMALL BLOOD VESSELS</b>  <i>Isailovic Velibor, Milosevic Milos, Vlastelica I., Kojic Nikola, Filipovic Nenad, Kojic Milos, Ferrari Mauro</i></p>	Room 12
Wed 16:30 – 17:00	Coffee Break	

## DAY 1 - WEDNESDAY, JUNE 12

Wed 17:00 – 19:00	<b>TECHNICAL SESSIONS</b>	
Wed 17:00 – 19:00	<p><b>COMPDYN RS 19: REPAIR AND RETROFIT OF STRUCTURES</b>  <b>Chair: S. Anagnostopoulos</b></p> <p><b>C 1119 KEYNOTE:</b> IMPROVING THE SEISMIC PERFORMANCE OF EXISTING OLD PILOTIS TYPE BUILDINGS BY STRENGTHENING ONLY THE GROUND STORY  <i>Antonopoulos Themistocles, Anagnostopoulos Stavros</i></p> <p><b>C 1394</b> STUDY OF THE BEHAVIOR OF RC COLUMNS STRENGTHENED WITH RC JACKETS CONTAINING DOWELS AND DIFFERENT CONFINEMENT RATIOS.  <i>Achillopoulou D. V., Tasiopoulos T.P.K., Karabinis A.I.</i></p> <p><b>C 1395</b> INVESTIGATION OF FORCE TRANSFER MECHANISMS IN RETROFITTED RC COLUMNS WITH RC JACKETS CONTAINING WELDS SUBJECTED TO AXIAL COMPRESSION.  <i>Achillopoulou D. V., Pardalakis T.A., Karabinis A.I.</i></p> <p><b>COMPDYN RS 21: SEISMIC DESIGN AND ASSESSMENT OF BRIDGES</b></p> <p><b>C 1241</b> BRIDGES WITH SIMPLY SUPPORTED DECKS: A SIMPLIFIED VULNERABILITY ASSESSMENT  <i>Raffaele Domenico, Mezzina Mauro, Tosto Antonio</i></p> <p><b>C 1402</b> EFFECT OF SPATIALLY VARIABLE GROUND MOTIONS ON THE SEISMIC FRAGILITY OF BOX GIRDER CONTINUOUS BRIDGES  <i>Elhowary Hesham, Ramadan Osman, Mehanny Sameh</i></p> <p><b>C 1548</b> AN ANALYTICAL TECHNIQUE FOR THE SEISMIC RESPONSE ASSESSMENT OF SLENDER BRIDGE PIERS  <i>Tubaldi Enrico, Tassotti Luca, Dall'Asta Andrea, Dezi L.</i></p>	Room 1
Wed 17:00 – 19:00	<p><b>COMPDYN MS 4: PERFORMANCE-BASED ENGINEERING AND RELIABILITY-BASED DESIGN - II</b>  <b>Minisymposium Organizers: M. Barbato , E. Tubaldi</b>  <b>Chair: E. Tubaldi</b></p> <p><b>C 1460</b> RISK-BASED DESIGN OF THE SEPARATION DISTANCE BETWEEN ADJACENT BUILDINGS  <i>Barbato Michele, Tubaldi Enrico</i></p> <p><b>C 1462</b> SEISMIC RESPONSE ANALYSIS OF EXISTING NON-DUCTILE BUILDINGS RETROFITTED WITH BRBS  <i>di Sarno Luigi, Chiodi Remo, Manfredi Gaetano</i></p> <p><b>C 1476</b> INFLUENCE OF STRUCTURAL AND FRAGILITY MODELING DECISIONS IN THE LOSS ASSESSMENT OF RC FRAME BUILDINGS  <i>Welch David, Sullivan Timothy</i></p>	Room 2



## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1535</b> DESIGN AND ASSESSMENT OF STEEL AND STEEL-CONCRETE COMPOSITE STRUCTURES: EFFICACY OF EN1998 DESIGN PROCEDURE <i>Braconi Aurelio, Caprili Silvia, Degée Hervé, Guendel Max, Hjaij Mohammed, Hoffmeister Benno, Karamanos Spyros, Rinaldi Valerie, Salvatore Walter</i></p> <p><b>C 1461</b> STRUCTURAL MODELLING ISSUES IN SEISMIC PERFORMANCE ASSESSMENT OF INDUSTRIAL STEEL BUILDINGS <i>Della Corte Gaetano, Iervolino Junio, Petruzzelli Fabio</i></p> <p><b>C 1311</b> TRANSIENT FOKKER-PLANCK EQUATION WITH SPH METHOD - APPLICATION IN SEISMIC DESIGN <i>Canor Thomas, Denoël Vincent</i></p> <p><b>C 1451</b> CONCEPT OF RISK-BASED SEISMIC DESIGN OF BUILDINGS USING METHODS OF NONLINEAR ANALYSIS <i>Dolšek Matjaž</i></p>	
Wed 17:00 – 19:00	<p><b>COMPdyn MS 17: RISK ASSESSMENT AND QUANTIFICATION IN ENGINEERING: A MULTI-DISCIPLINARY PERSPECTIVE - II</b> <b>Minisymposium Organizers:</b> M. Beer, E. Patelli, I. Kougoumtzoglou, A. Naess <b>Chair:</b> E. Patelli</p> <p><b>C 1557</b> A BAYESIAN MODEL UPDATING PROCEDURE FOR DYNAMIC HEALTH MONITORING <i>Patelli Edoardo, Broggi Matteo, Beaurepaire Pierre</i></p> <p><b>C 1657</b> THE RATIONAL IMPERATIVE OF PROFESSIONAL RISK MANAGEMENT <i>Nathwani Jatin, Lind Niels</i></p> <p><b>C 1364</b> A SIMPLIFIED METHODOLOGY TO OBTAIN RELIABILITY INDEXES FOR CALIBRATION OF DESIGN CODE FOR BUILDINGS <i>Pérez-Rocha Luis Eduardo, Fernández Marco Aurelio, Manjarrez Lorena Elizabeth, Maldonado Jiménez David, Esteva L.</i></p> <p><b>COMPdyn MS 23: ADVANCES IN STRUCTURAL VIBRATIONS - II</b> <b>Minisymposium Organizer:</b> E. Sapountzakis</p> <p><b>C 1479</b> NONLINEAR VIBRATIONS OF ROTATING 3D TAPERED BEAMS WITH ARBITRARY CROSS SECTIONS <i>Stoykov Stanislav, Margenov Svetozar</i></p> <p><b>C 1392</b> LIQUID FREE VIBRATION ANALYSIS IN A CIRCULAR CYLINDRICAL RIGID CAVITY USING THE h-p FINITE ELEMENT METHOD <i>Ouissi Mohammed Nabil, Hamza Cherif Sidi Mohammed</i></p>	Room 3

## DAY 1 - WEDNESDAY, JUNE 12

<p><b>Wed 17:00 – 19:00</b></p>	<p><b>SEECCM MS 17: ISOGEOMETRIC METHODS - II</b>  <b>Minisymposium Organizers: A. Reali, F. Auricchio</b>  <b>Chair: A. Reali</b></p> <p><b>S 2061 KEYNOTE: PARAMETER FREE WEAK BOUNDARY AND COUPLING CONDITIONS FOR IGA</b>  <i>Kollmannsberger Stefan, Reali Alessandro, Özcan Ali, Ruess M., Baiges J., Rank Ernst</i></p> <p><b>S 2057 B-SPLINE SURFACE MAPPING TO DESCRIBE AORTA KINEMATICS DURING CARDIAC CYCLE</b>  <i>Auricchio Ferdinando, Calo Victor, Collier Nathan, Conti Michele, Reali Alessandro</i></p> <p><b>S 2081 AN UNLOCKED IMPLICIT <math>G^1</math> CONTINUITY MULTI PATCH B-SPLINE INTERPOLATION FOR THE ANALYSIS OF 3D KIRCHHOFF LOVE ROD ELEMENTS</b>  <i>Greco Leopoldo, Cuomo Massimo, Impollonia Nicola</i></p> <p><b>S 2143 COMPUTATION OF THE ISOGEOMETRIC ANALYSIS STIFFNESS MATRIX ON GPU</b>  <i>Karatarakis Alexander, Karakitsios Panagiotis, Papadrakakis Manolis</i></p> <p><b>S 2156 PRECONDITIONING TECHNIQUES FOR MASS MATRICES FROM ISOGEOMETRIC ANALYSIS</b>  <i>Gao Longfei, Calo Victor</i></p>	<p><b>Room 4</b></p>
<p><b>Wed 17:00 – 19:00</b></p>	<p><b>COMPDYN RS 29: SOIL-STRUCTURE INTERACTION - I</b>  <b>Chair: I. Anastasopoulos</b></p> <p><b>C 1250 STRUCTURE-SOIL INTERACTION FOR FRAMED STRUCTURES UNDER DYNAMICS LOADING CAUSED BY RECIPROCATING COMPRESSOR</b>  <i>Viana Eduardo, Roehl Deane</i></p> <p><b>C 1324 A PROCEDURE FOR EVALUATING THE SOIL-STRUCTURE INTERACTION EFFECTS ON THE SYSTEM PERIOD AND DAMPING OF PILE-SUPPORTED STRUCTURES</b>  <i>Medina Cristina, Aznárez Juan J., Padrón Luis A., Maeso Orlando</i></p> <p><b>C 1342 NON-LINEAR DYNAMIC ANALYSIS OF MASONRY TOWERS UNDER NATURAL ACCELEROGRAMS ACCOUNTING FOR SOIL-STRUCTURE INTERACTION</b>  <i>Casolo Siro, Uva Giuseppina</i></p> <p><b>C 1450 GENERATION OF INCOHERENT GROUND MOTIONS FOR SOIL-STRUCTURE INTERACTION APPLICATIONS</b>  <i>Tran Phuong, Wang Fan, Clouteau Didier</i></p> <p><b>C 1515 DYNAMIC SOIL-STRUCTURE INTERACTION ANALYSIS OF A TELESCOPE AT THE JAVALAMBRE ASTROPHYSICAL OBSERVATORY</b>  <i>François Stijn, Galvin Pedro, Museros Pedro, Lombaert Geert, Degrande Geert</i></p>	<p><b>Room 5</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1531</b> ACCOUNTING FOR NONLINEAR DYNAMIC SOIL-STRUCTURE INTERACTION IN EARTHQUAKE ENGINEERING <i>Nieto Ferro Alex, Greffet Nicolas, Devésa Georges, Clouteau Didier</i></p>	
<p><b>Wed 17:00 – 19:00</b></p>	<p><b>COMPdyn RS 22: SEISMIC PERFORMANCE EVALUATION UNDER UNCERTAINTY</b> <i>Chair: N. Lagaros</i></p> <p><b>C 1122</b> A COMPARATIVE STUDY OF SEISMIC FRAGILITY ESTIMATES USING DIFFERENT NUMERICAL METHODS <i>Mandal Tushar, Pujari Nikil, Ghosh Siddhartha</i></p> <p><b>C 1329</b> EVALUATION OF THE EFFECT OF MODELING UNCERTAINTIES ON THE SEISMIC RESPONSE OF EXISTING MASONRY BUILDINGS <i>Rota Maria, Bracchi Stefano, Penna Andrea, Magenes Guido</i></p> <p><b>C 1373</b> TIME-DEPENDENT SEISMIC VULNERABILITY ASSESSMENT OF RC BUILDINGS CONSIDERING SSI AND AGING EFFECTS <i>Karapetrou Sotiria, Filippa Argyro, Fotopoulou Stavroula, Kyriazis Pitilakis</i></p> <p><b>COMPdyn RS 23: SEISMIC RISK AND RELIABILITY ANALYSIS</b></p> <p><b>C 1239</b> INSTRUCTIONS OVERVIEW ON THE REGIONAL SCALE ANALYSIS OF SCHOOL BUILDINGS IN PUGLIA (ITALY) <i>Raffaele Domenico, Mezzina Mauro, Tosto Antonio</i></p> <p><b>C 1551</b> AN ANALYSIS OF METHODS FOR DERIVING MAGNITUDES OF HISTORIC EARTHQUAKES THAT ARE BASED ON PHYSICAL PRINCIPLES <i>Belsham Christopher</i></p> <p><b>C 1709</b> CONDITIONS FOR MEASURING SEISMIC SHOCKS AND THEIR ANALYSIS AND RESPONSE ON BUILDINGS AND INDUSTRIAL STRUCTURES <i>Ziaran Stanislav, Musil Milos, Cekan Michal</i></p>	<p><b>Room 6</b></p>
<p><b>Wed 17:00 – 19:00</b></p>	<p><b>COMPdyn MS 29: ACCURACY AND COMPUTATIONAL EFFICIENCY IN DYNAMIC/SEISMIC STRUCTURAL ANALYSIS - I</b> <i>Minisymposium Organizer: A. Soroushian</i> <i>Chair: A. Soroushian</i></p> <p><b>C 1413 KEYNOTE:</b> A SIMPLE APPROACH TOWARDS FURTHER ACCURACY IN STRUCTURAL DYNAMIC ANALYSIS <i>Soroushian Aram</i></p> <p><b>C 1439</b> ON THE RESPONSE OF THE SMALL BUILDINGS TO VIBRATIONS <i>Munteanu Ligia, Chiroiu Veturia, Sireteanu Tudor</i></p> <p><b>C 1661</b> THEORETICAL STUDY ON THE REDUCTION AND RECOVERING METHOD <i>Kurata Mitsuharu, Gan Buntara Sthenly, Nouchi Eiji</i></p>	<p><b>Room 7</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1440</b> MORE VERSATILITY FOR AN INTEGRATION-STEP-SIZE-ENLARGEMENT TECHNIQUE IN TIME INTEGRATION ANALYSIS <i>Sabzei Ahmad, Reziakolaei Ali Yahyapour, Soroushian Aram</i></p> <p><b>C 1670</b> SIMPLIFICATION OF EARTHQUAKE ACCELEROGRAMS FOR RAPID TIME HISTORY ANALYSIS BASED ON THE IMPULSIVE LOAD CONCEPT <i>Hosseini Mahmood, Mirzaei Iman</i></p>	
<p><b>Wed 17:00 – 19:00</b></p>	<p><b>COMPdyn MS 15: NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS – II</b> <b>Minisymposium Organizer: G. Manos</b> <b>Chair: G. Manos</b></p> <p><b>C 1384</b> THE EARTHQUAKE DESIGN OF LOW-RISE HOMES MADE BY EITHER REINFORCED CONCRETE, PARTIALLY REINFORCED MASONRY OR A NOVEL STEEL COMPOSITE SYSTEM <i>Manos George, Katakalos Konstantinos, Theofanous Marios, Nalbadidou Alexandra, Tsakalidis Valerio, Stathi Christina</i></p> <p><b>C 1396</b> LARGE-SCALE NONLINEAR VISCOUS DAMPER MODEL CHARACTERIZATION FOR APPLICATIONS TOWARDS IMPROVING SEISMIC PERFORMANCE OF STEEL BUILDINGS <i>Dong Baiping, Chae Yunbyeong, Ricles James, Sause Richard</i></p> <p><b>C 1482</b> INFLUENCE OF THE LOADING RATE ON THE AXIAL COMPRESSIVE BEHAVIOR OF CONCRETE SPECIMENS CONFINED WITH SRG JACKETS <i>Thermou Georgia, Katakalos Konstantinos, Manos George</i></p> <p><b>C 1383</b> DYNAMIC BEHAVIOUR OF GREEK POST-BYZANTINE CHURCHES WITH FOUNDATION DEFORMABILITY AND EVALUATION OF THEIR EARTHQUAKE PERFORMANCE – EXPERIMENTAL INVESTIGATION OF STONE MASONRY MATERIAL PROPERTIES <i>Manos George, Kotoulas Labros, Matsou Vassiliki, Felekidou Olimbia</i></p> <p><b>C 1677</b> SEISMIC RELIABILITY OF REINFORCED CONCRETE BRIDGE COLUMNS BASED ON LOCAL AND GLOBAL DAMAGE APPROACHES <i>Benamer Mohamed, Feng Yatin</i></p> <p><b>C 1473</b> NUMERICAL ANALYSIS OF SEISMIC RESPONSE OF NATURAL STONE ARCH BRIDGES. FIELD OBSERVATIONS AND A CASE STUDY <i>Simos Nikolaos, George Manos</i></p> <p><b>C 1474</b> NUMERICAL SIMULATION PREDICTION OF NON-LINEAR RESPONSE OF RC STRUCTURES. BENCHMARKING OF MULTI-DIRECTIONAL, NEAR-FIELD AND FAR FIELD EARTHQUAKES <i>Simos Nikolaos</i></p>	<p><b>Room 8</b></p>

## DAY 1 - WEDNESDAY, JUNE 12

Wed 17:00 – 19:00	<p><b>COMPdyn MS 41: BRICK-INFILLED RC FRAMES: SEISMIC BEHAVIOR AND RETROFIT</b> <i>Minisymposium Organizers: C. Spyarakos, P. Asteris</i> <i>Chair: A. Tena-Colunga</i></p> <p><b>C 1704</b> VALIDATION OF ANALYTICAL MODELS FOR THE ASSESSMENT OF BRICK-INFILLED RC FRAMES STRENGTHENED WITH FRPS <i>Spyarakos Constantine, Maniatakis Charilaos, Psycharis Ioannis, Smyrou Eleni, Asteris Panagiotis</i></p> <p><b>C 1270</b> LOCAL EFFECTS IN THE SEISMIC DESIGN OF RC FRAME STRUCTURES WITH MASONRY INFILLS <i>Hak Sanja, Morandi Paolo, Magenes Guido</i></p> <p><b>C 1322</b> ESTIMATION OF EFFECTIVE STIFFNESS OF INFILL PANELS AT DAMAGE LIMITATION LIMIT STATE FOR LOW- AND MID-RISE INFILLED RC FRAMES <i>de Risi Maria Teresa, Ricci Paolo, Verderame Gerardo Mario, Manfredi Gaetano</i></p> <p><b>C 1533</b> ANALYSIS OF LOCAL SHEAR EFFECTS IN BRICK MASONRY INFILLED RC FRAMES <i>Cavaleri Liborio, di Trapani Fabio, Papia Maurizio</i></p> <p><b>C 1604</b> ITERATIVE PUSHOVER-BASED PROCEDURE FOR SEISMIC PERFORMANCE ASSESSMENT OF INFILLED REINFORCED CONCRETE FRAMES WITH CONSIDERATION OF SHEAR FAILURE OF COLUMNS <i>Celarec Daniel, Dolšek Matjaž</i></p> <p><b>COMPdyn MS 32: SEISMIC ANALYSIS AND DESIGN OF IRREGULAR BUILDINGS</b> <i>Minisymposium Organizers: A. Tena-Colunga</i></p> <p><b>C 1294</b> ASSESSMENT OF THE RIGID OR FLEXIBLE DIAPHRAGM CONDITION FOR FLOOR SYSTEMS USED IN BUILDINGS WITH LARGE PLAN ASPECT RATIOS <i>Tena-Colunga Arturo, Chinchilla-Portillo Karen L., Juárez-Luna Gelacio</i></p> <p><b>C 1741</b> ROT INDEX FOR ASSESSING THE TORSIONAL EFFECT ON THE SEISMIC PERFORMANCE OF RC BUILDINGS <i>Stathi Chrysanthi, Bakas Nikolaos, Lagaros Nikos, Papadrakakis Manolis</i></p>	Room 9
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## DAY 1 - WEDNESDAY, JUNE 12

Wed 17:00 – 19:00	<p><b>COMPDYN MS 19: IDENTIFICATION METHODS IN STRUCTURAL DYNAMICS</b>  <i>Minisymposium Organizer: C. Papadimitriou</i>  <b>Chair: C. Papadimitriou</b></p> <p><b>C 1669</b> BAYESIAN UNCERTAINTY QUANTIFICATION OF NONLINEAR SYSTEMS USING DYNAMIC MEASUREMENTS FROM COMPONENTS AND SYSTEM TESTS  <i>Giagopoulos Dimitrios, Papadioti Dimitra-Christina, Papadimitriou Costas, Natsiavas Sotirios</i></p> <p><b>C 1164</b> NONLINEAR IDENTIFICATION OF A GEAR TRANSMISSION SYSTEM USING NUMERICAL AND EXPERIMENTAL METHODS  <i>Giagopoulos Dimitrios, Papadioti Dimitra-Christina, Papadimitriou Costas, Natsiavas Sotirios</i></p> <p><b>C 1223</b> RECORDED SHEAR-WAVE TRAVEL TIMES IN BUILDINGS FOR SYSTEM IDENTIFICATION AND DAMAGE DETECTION  <i>Safak Erdal , Çakti Eser, Zengin Esra</i></p> <p><b>C 1169</b> ESTIMATING THERMAL INERTIA AND TEMPERATURE DISTRIBUTION CONSISTENT WITH MONITORED DATA FROM A RAILWAY BRIDGE  <i>Casciati Fabio, Casciati Sara, Faravelli Lucia, Bortoluzzi Daniele, Messervey Thomas</i></p> <p><b>C 1268</b> FINITE ELEMENT MODEL UPDATING OF A FOOTBRIDGE BASED ON STATIC AND DYNAMIC MEASUREMENTS  <i>Solís Mario, He Leqia, Lombaert Geert, de Roeck Guido</i></p> <p><b>C 1335</b> UKF ESTIMATION OF SP-TAR MODELS FOR THE IDENTIFICATION OF TIME-VARYING STRUCTURES  <i>Spiridonakos Minas, Chatzi Eleni</i></p> <p><b>C 1738</b> MODE SHAPE ASSEMBLY FOR AMBIENT MODAL ANALYSIS USING A TWO-STAGE BAYESIAN SPECTRAL DENSITY APPROACH  <i>Yan Wang-Ji, Katafygiotis Lambros</i></p>	Room 10
Wed 17:00 – 19:00	<p><b>COMPDYN RS 5: DESIGN METHODS UNDER DYNAMIC AND SEISMIC ACTIONS</b>  <b>Chair: V. Plevris</b></p> <p><b>C 1148</b> ECCENTRIC STEEL BUILDINGS DESIGNED FOR UNIFORM DUCTILITY DEMANDS UNDER EARTHQUAKE ACTIONS  <i>Kyrkos Miltiadis, Anagnostopoulos Stavros</i></p> <p><b>C 1481</b> INCLUSION OF GEOMETRIC NONLINEARITY IN CALCULATING SEISMIC BUILDING FRAMES  <i>Martinez Valle Jose Miguel, Martinez Jimenez Jose Miguel, Martinez Jimenez Pilar</i></p>	Room 11

## DAY 1 - WEDNESDAY, JUNE 12

	<p><b>C 1726</b> COMPARISON OF EC8-PART 1 WITH THE GREEK SEISMIC CODE (EAK2000) WITH EMPHASIS ON THE DESIGN OF REINFORCED CONCRETE BUILDINGS <i>Plevris Vagelis, Argyropoulos Christos</i></p> <p><b>C 1087</b> DYNAMICS OF MARINE STATIONARY PLATFORM UNDER ACTION OF HORIZONTAL SEISMIC LOADING <i>Shekhovtsov Alexey, Shekhovtsov Vyacheslav, Tovstik Petr, Tovstik Tatiana</i></p> <p><b>C 1745</b> ANALYSIS AND DESIGN OF STAIRCASES AGAINST SEISMIC LOADINGS <i>Tegos Ioannis, Panoskaltzis Vassilis, Tegou Sevasti</i></p> <p><b>C 1266</b> USE OF SEISMIC DATA FOR MONITORING AQUIFERS <i>Lähivaara Timo, Kaipio Jari, Dudley Ward Nicholas, Huttunen Tomi</i></p>	
Wed 17:00 – 19:00	<p><b>COMPdyn MS 8: RESILIENCE BASED-DESIGN OF COMMUNITIES AND INFRASTRUCTURES</b> <b><i>Minisymposium Organizer: G. Cimellaro</i></b> <b><i>Chair: G. Cimellaro</i></b></p> <p><b>C 1123</b> A COMPREHENSIVE METHODOLOGY FOR THE EVALUATION OF INFRASTRUCTURE INTERDEPENDENCIES <i>Solari Daniele, Cimellaro Gian Paolo</i></p> <p><b>C 1243</b> EVALUATING THE POST-EARTHQUAKE ACCESSIBILITY OF HOSPITALS FOR MITIGATION STRATEGY DECISION SUPPORT BY FRAGILITY AND CONNECTIVITY MODELLING <i>Kongar Indranil, Verrucci Enrica, Rossetto Tiziana, Bevington John</i></p> <p><b>C 1252</b> SECURING COMMUNITY RESILIENCE BY MODERN INFRASTRUCTURE DESIGN <i>Pickering Thomas, Dunn Sarah, Wilkinson Sean</i></p> <p><b>C 1683</b> DAMAGE REPORT WITH SMARTPHONES DURING EMILIA EARTHQUAKE, 2012 <i>Arcidiacono Vincenzo, Cimellaro Gian Paolo</i></p> <p><b>COMPdyn RS 3: COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - I</b></p> <p><b>C 1292</b> A THREE DIMENSIONAL MULTISCALE FORMULATION FOR THE NONLINEAR DYNAMIC ANALYSIS OF MASONRY STRUCTURES <i>Triantafyllou Savvas, Chatzi Eleni</i></p> <p><b>C 1070</b> CONTACT INTERFACE MODELING IN THE DYNAMIC RESPONSE OF RIGID BLOCKS SUBJECTED TO BASE EXCITATION <i>Ardila-Giraldo Oscar, Reyes Juan Carlos, Smith-Pardo J. Paul</i></p>	Room 12

## DAY 2 - THURSDAY, JUNE 13

Thu 08:30 – 10:30	TECHNICAL SESSIONS	
Thu 08:30 – 10:30	<p><b>COMPDYN MS 26: COMPUTATIONAL MULTIBODY SYSTEM DYNAMICS</b>  <b>Minisymposium Organizers:</b> A. Shabana, D. Negrut, H. Sugiyama  <b>Chair:</b> H. Sugiyama</p> <p><b>C 1150</b> ESTIMATION OF ROAD PROFILE WITH MULTIBODY DYNAMIC ANALYSIS AND DISTURBANCE OBSERVER  <i>Shiiba Taichi, Murakami Taiga</i></p> <p><b>C 1160</b> RIGID BODY DYNAMICS USING A NOVEL APPROACH BASED ON LIE GROUP THEORY  <i>Paraskevopoulos Elias, Natsiavas Sotirios</i></p> <p><b>C 1196</b> SCALED WHEELSET TEST MODEL INVOLVING WHEEL LIFT BY FLANGE IMPACT  <i>Sugiyama Hiroyuki, Yamamoto Hayata, Nishina Minoru, Sunami Hironobu</i></p> <p><b>C 1593</b> NUMERICAL PROCEDURE FOR GEAR DYNAMICS SIMULATION OF WIND ENERGY DRIVETRAIN USING TABULAR CONTACT SEARCH  <i>Sugiyama Hiroyuki, Terao Akihiro</i></p>	Room 1
Thu 08:30 – 10:30	<p><b>COMPDYN MS 33: STEEL AND COMPOSITE STEEL REINFORCED CONCRETE STRUCTURES UNDER DYNAMIC AND SEISMIC LOADING</b>  <b>Minisymposium Organizer:</b> I. Vayas  <b>Chair:</b> I. Vayas</p> <p><b>C 1076 KEYNOTE:</b> SEISMIC BEHAVIOUR OF INNOVATIVE ENERGY DISSIPATION SYSTEMS FUSEIS 1-1  <i>Dougka Georgia, Dimakogianni Danai, Vayas Ioannis, Karydakis Phaedon</i></p> <p><b>C 1075</b> SEISMIC BEHAVIOUR OF INNOVATIVE ENERGY DISSIPATION SYSTEMS FUSEIS 1-2  <i>Dimakogianni Danai, Dougka Georgia, Vayas Ioannis, Karydakis Phaedon</i></p> <p><b>C 1118</b> ESTIMATION OF THE BEHAVIOR FACTOR OF STEEL STORAGE PALLET RACKS  <i>Adamakos Konstantinos, Avgerinou Stella, Vayas Ioannis</i></p> <p><b>C 1295</b> DESIGN AND PERFORMANCES OF STEEL-CONCRETE HYBRID COUPLED SHEAR WALLS IN SEISMIC CONDITIONS  <i>Bogdan Teodora, Zona Alessandro, Leoni Graziano, Dall'Asta Andrea, Degée Hervé</i></p> <p><b>C 1264</b> COMPARATIVE ASSESSMENT OF BUILDINGS WITH PURE STEEL OR STEEL-CONCRETE COMPOSITE COLUMNS USING STRUCTURAL DESIGN OPTIMIZATION  <i>Papavasileiou Georgios, Nikolaou Nikolas, Charmpis Dimos</i></p>	Room 2



## DAY 2 - THURSDAY, JUNE 13

Thu 08:30 – 10:30	<p><b>COMPdyn RS 28: SOIL DYNAMICS</b>  <b>Chair: A. Soroushian</b></p> <p><b>C 1202</b> A MULTI-DIRECTIONAL ABSORBING LAYER FOR SEISMIC WAVE PROPAGATION IN UNBOUNDED DOMAIN BY USING HETEROGENEOUS MULTI-TIME STEP SUBDOMAIN METHODS.  <i>Zafati Eliass, Brun Michael, Irini Djeran-Maigre</i></p> <p><b>C 1228</b> PERFECTLY MATCHED LAYER (PML) FOR TRANSIENT WAVE PROPAGATION IN A MOVING FRAME OF REFERENCE  <i>Madsen Stine, Krenk Steen, Hededal Ole</i></p> <p><b>C 1398</b> A COMPARISON OF TWO ELASTIC-PLASTIC APPROACHES TO CYCLIC SOIL MODELING  <i>Pisanò Federico, Jeremić Boris</i></p> <p><b>C 1361</b> INFLUENCE OF SOIL-STRUCTURE INTERACTION ON ISOLATED BUILDINGS FOR SF6 GAS-INSULATED SUBSTATIONS  <i>Pérez-Rocha Luis Eduardo, Aviles Javier, Tena Colunga, Macías Cordero</i></p> <p><b>COMPdyn MS 29: ACCURACY AND COMPUTATIONAL EFFICIENCY IN DYNAMIC/SEISMIC STRUCTURAL ANALYSIS – II</b>  <b>Minisymposium Organizer: A. Soroushian</b></p> <p><b>C 1441</b> ON THE PERFORMANCE OF A STRUCTURAL ANALYSIS COST REDUCTION TECHNIQUE WHEN APPLIED TO RESIDENTIAL BUILDINGS  <i>Reziakolaei Ali Yahyapour, Sabzei Ahmad, Soroushian Aram</i></p> <p><b>C 1595</b> CYCLIC BEHAVIOR MODELING OF RECTANGULAR RC BRIDGE PIERS USING OPENSEES  <i>Attarchian Nahid, Kalantari Afshin, Sarvghad Moghaddam AbdoReza</i></p>	Room 3
Thu 08:30 – 10:30	<p><b>COMPdyn MS 13: DYNAMIC SOIL STRUCTURE INTERACTION MODELING AND SIMULATION</b>  <b>Minisymposium Organizers: B. Jeremic, M. Taiebat</b>  <b>Chair: B. Jeremic</b></p> <p><b>C 1576</b> EFFECT OF NEAR-FAULT GROUND MOTIONS ON SEISMIC RESPONSE OF DEEP BASEMENT WALLS  <i>Amirzehni Elnaz, Taiebat Mahdi, Finn Liam, Devall Ronald</i></p> <p><b>C 1718</b> EARTHQUAKE RESPONSE ANALYSES OF SOIL-STRUCTURE INTERACTION SYSTEM USING NONLINEAR ENERGY TRANSMITTING BOUNDARY  <i>Nakamura Naohiro</i></p> <p><b>COMPdyn RS 29: SOIL-STRUCTURE INTERACTION - II</b>  <b>C 1024</b> AN INSIGHT INTO THE INFLUENCE OF CONSTRUCTION METHODS ON THE LATERAL LOAD CAPACITY OF DRILLED DEEP FOUNDATIONS  <i>Bezgin Özgür</i></p>	Room 4

## DAY 2 - THURSDAY, JUNE 13

	<p><b>C 1040</b> THREE-DIMENSIONAL FINITE ELEMENT MODELLING OF DYNAMIC PILE-SOIL-PILE INTERACTION IN TIME DOMAIN <i>Kouroussis Georges, Anastasopoulos Ioannis, Gazetas George, Verlinden Olivier</i></p> <p><b>C 1092</b> PERFORMANCE-BASED SEISMIC DEMAND OF SOIL-FOUNDATION-STRUCTURE SYSTEMS <i>Karatzetzou Anna, Pitilakis Dimitris</i></p>	
Thu 08:30 – 10:30	<p><b>COMPdyn MS 3: PROGRESS AND CHALLENGES IN SPACECRAFT STRUCTURAL DYNAMICS - I</b> <b>Minisymposium Organizers: A. Calvi, G. Aglietti</b> <b>Chair: G. Aglietti</b></p> <p><b>C 1041 KEYNOTE:</b> CHARACTERIZATION AND SYNTHESIS OF RANDOM ACCELERATION VIBRATION SPECIFICATIONS <i>Wijker Jaap, Ellenbroek Marcel, de Boer Andre</i></p> <p><b>C 1078</b> SINE TEST PREPARATION &amp; MANAGEMENT INVOLVING A LARGE NUMBER OF CHANNEL COUNTS <i>Kiley Andrew</i></p> <p><b>C 1219</b> THE CHALLENGES AND PROGRESS IN SIMULATING LARGE, TAPE SPRING BASED, SPACE DEPLOYABLE STRUCTURES <i>Walker Scott, Aglietti Guglielmo</i></p> <p><b>C 1254</b> INVESTIGATING THE MID-FREQUENCY RANGE OF MICRO-VIBRATION PREDICTIONS IN SPACECRAFT STRUCTURES <i>Remedia Marcello, Aglietti Guglielmo, Richardson Guy</i></p> <p><b>S 2014</b> STUDY OF ASYMMETRIC GLASS REINFORCED PLASTIC BEAMS IN OFF-AXIS FOUR-POINT BENDING <i>Theotokoglou Efstathios, Sideridis Emilios</i></p>	Room 5
Thu 08:30 – 10:30	<p><b>COMPdyn RS 4: CONSTITUTIVE MODELLING UNDER DYNAMIC AND SEISMIC ACTIONS</b> <b>Chair: M. Fragiadakis</b></p> <p><b>C 1019</b> EXPERIMENTAL STUDY AND NUMERICAL RESPONSE PREDICTION OF A STEEL MOMENT-FRAME WITH TAKING FATIGUE DAMAGE INTO ACCOUNT <i>Saranik Mohammad, Jézéquel Louis, Lenoir David</i></p> <p><b>C 1020</b> NUMERICAL MODELING OF DYNAMIC COMPACTION IN DRY SAND USING DIFFERENT CONSTITUTIVE MODELS <i>Pourjenabi Majid, Ghanbari Elham, Hamidi Amir</i></p> <p><b>C 1066</b> THE APPLICATION OF FEM/DEM METHOD IN ANALYSIS OF RC BEAM-COLUMN JOINTS <i>Nikolić Željana, Živaljić Nikolina, Smoljanović Hrvoje</i></p>	Room 6

**DAY 2 - THURSDAY, JUNE 13**

	<p><b>C 1409</b> HETEROGENEOUS CONSTITUTIVE MODELING AND MATERIAL DAMPING IN REINFORCED CONCRETE FRAME ELEMENTS IN SEISMIC LOADING <i>Jehel Pierre, Cottureau Régis</i></p>	
<p><b>Thu 08:30 – 10:30</b></p>	<p><b>SEECCM MS 8: COMPUTATIONAL NON-NEWTONIAN FLUID MECHANICS</b> <i>Minisymposium Organizers: G. Georgiou, K. Housiadas</i> <i>Chair: G. Georgiou</i></p> <p><b>S 2010 KEYNOTE:</b> SOLUTION OF VISCOPLASTIC FLOWS WITH THE FINITE VOLUME/MULTIGRID METHOD <i>Syrakos Alexandros, Georgiou Georgios, Alexandrou Andreas</i></p> <p><b>S 2008</b> COMPUTING THE VISCOMETRIC FUNCTIONS FOR SUSPENSIONS OF SPHERES IN A NEWTONIAN MATRIX <i>Tanner Roger, Bertevas Erwan</i></p> <p><b>S 2012</b> ANALYTICAL AND NUMERICAL SOLUTIONS FOR THE VISCOELASTIC FLOW AROUND A RIGID SPHERE UNDER THE INFLUENCE OF SHEARING <i>Housiadas Kostas, Tanner Roger</i></p> <p><b>S 2093</b> CESSATION FLOWS OF BINGHAM PLASTICS WITH SLIP AT THE WALL <i>Philippou Maria, Damianou Yiolanda, Kaoullas George, Georgiou Georgios</i></p> <p><b>S 2122</b> VISCOPLASTIC FLOW PAST A CYLINDER: TRANSITION TO TURBULENCE <i>Alexandrou Andreas, Kassinos Stavros, Xenis Flouris</i></p>	<p><b>Room 7</b></p>
<p><b>Thu 08:30 – 10:30</b></p>	<p><b>SEECCM MS 24: PROBLEMS WITH HETEROGENEOUS MATERIALS</b> <i>Minisymposium Organizers: H. Matthies, R. Slavkovic, M. Zivkovic, B. Rosic</i> <i>Chair: V. Papadopoulos</i></p> <p><b>S 2039</b> STOCHASTIC DESCRIPTION OF LARGE STRAIN ELASTOPLASTICITY <i>Rosić Bojana, Matthies Hermann, Miroslav Živkovic, Ibrahimbegović Adnan</i></p> <p><b>S 2119</b> EMBANKMENT DAM STABILITY ANALYSIS USING FEM <i>Rakić Dragan, Živković Miroslav, Vulović Snežana, Divac Dejan, Slavković Radovan, Milivojević Nikola</i></p> <p><b>S 2127</b> IMPLICIT INTEGRATION METHOD OF SHAPE MEMORY ALLOYS CONSTITUTIVE MODEL <i>Dunić Vladimir, Slavković Radovan, Busarac Nenad, Slavković Vukašin, Živković Miroslav</i></p> <p><b>SEECCM MS 22: THE MULTISCALE STOCHASTIC FINITE ELEMENT METHOD</b> <i>Minisymposium Organizers: G. Stefanou, G. Deodatis, V. Papadopoulos, M. Papadrakakis</i></p> <p><b>S 2125</b> MODELING THE FAILURE OF STRUCTURES WITH STOCHASTIC PROPERTIES IN A SEQUENTIALLY LINEAR ANALYSIS FRAMEWORK <i>Georgioudakis Manolis, Stefanou George, Papadrakakis Manolis</i></p>	<p><b>Room 8</b></p>

## DAY 2 - THURSDAY, JUNE 13

	<p><b>S 2126</b> BUCKLING ANALYSIS OF STEEL TUBES WITH RANDOM GEOMETRIC IMPERFECTIONS <i>Stefanou George, Vryzidis Isaak, Papadopoulos Vissarion</i></p> <p><b>S 2141</b> STOCHASTIC DYNAMIC RESPONSE OF STRUCTURES <i>Papadopoulos Vissarion, Kokkinos Odysseas, Papadrakakis Manolis</i></p>	
<b>Thu 08:30 – 10:30</b>	<p><b>COMPdyn RS 25: SIMULATION METHODS FOR DYNAMIC PROBLEMS - I</b> <i>Chair: P. Polycarpou</i></p> <p><b>C 1071</b> SIMULATION OF STRUCTURAL POUNDING WITH THE SEARS IMPACT MODEL <i>Khatiwada Shushil, Chouw Nawawi, Larkin Tam</i></p> <p><b>C 1162</b> AN EFFICIENT NUMERICAL APPROACH FOR THE PARAMETRIC INVESTIGATION OF THE EFFECTS OF POUNDING ON THE 3D DYNAMIC RESPONSE OF BUILDINGS DURING EARTHQUAKES <i>Polycarpou Panayiotis, Komodromos Petros</i></p> <p><b>C 1176</b> PHENOMENOLOGICAL MODELING OF DEFORMATION OF POROUS AND CELLULAR MATERIALS TAKING INTO ACCOUNT THE INCREASE IN STIFFNESS BECAUSE OF THE COLLAPSE OF PORES <i>Sadovskii Vladimir, Sadovskaya Oxana</i></p> <p><b>C 1187</b> REAL-TIME ERROR CORRECTION IN FAST PSEUDODYNAMIC TESTING: A NUMERICAL STUDY <i>Gultom Ronald, Ma Quincy</i></p> <p><b>C 1197</b> A NUMERICAL INVESTIGATION INTO THE BEHAVIOUR OF FLEXIBLE UPLIFTING STRUCTURES WITH SLIP-FRICTION CONNECTORS UNDER EARTHQUAKE LOADING <i>Loo Wei Yuen, Quenneville Pierre, Chouw Nawawi</i></p> <p><b>C 1537</b> INFLUENCE OF LOW-CYCLE FATIGUE AND CORROSION PHENOMENA ON THE DUCTILE BEHAVIOUR OF STEEL REINFORCING BARS <i>Braconi Aurelio, Braga Franco, Caprili Silvia, Gigliotti Rosario, Salvatore Walter</i></p>	<b>Room 9</b>

## DAY 2 - THURSDAY, JUNE 13

Thu 08:30 – 10:30	<p><b>SEECM RS 13: OPTIMIZATION</b>  <b>Chair: V.Plevris</b></p> <p><b>S 2009</b> STRUCTURAL AND MULTI-FUNCTIONAL OPTIMIZATION USING MULTIPLE PHASES AND A LEVEL-SET METHOD  <i>Allaire Grégoire, Jouve Francois, Michailidis Georgios</i></p> <p><b>S 2017</b> HIERARCHICAL OPTIMIZATION OF LAMINATED FIBER REINFORCED COMPOSITES  <i>Ferreira Rafael, Rodrigues Helder, Guedes Jose Miranda, Hernandez Jose</i></p> <p><b>S 2147</b> DISCRETE OPTIMIZATION APPROACH FOR STEEL FRAMES AND TRUSSES, BASED ON GENETIC ALGORITHM  <i>Balea Ioana, Hulea Radu, Stavroulakis Georgios</i></p> <p><b>S 2155</b> MULTI-OBJECTIVE SHAPE DESIGN OPTIMIZATION INTO AN EXTENDED FINITE ELEMENT METHOD (XFEM) FRAMEWORK  <i>Georgioudakis Manolis, Lagaros Nikos, Papadrakakis Manolis</i></p> <p><b>S 2135</b> ROBUST DESIGN OPTIMIZATION IN PARALLEL COMPUTING ENVIRONMENT  <i>Lagaros Nikos, Papadrakakis Manolis</i></p> <p><b>S 2157</b> EVALUATION OF WELDING RESIDUAL STRESS IN STAINLESS STEEL PIPES BY USING THE LCR ULTRASONIC WAVES  <i>Javadi Yashar, Plevris Vagelis</i></p>	Room 10
Thu 08:30 – 10:30	<p><b>COMPdyn MS 18 : SEISMIC ASSESSMENT OF HERRITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION - I</b>  <b>Minisymposium Organizer: S. Pantazopoulou</b>  <b>Chair: S. Pantazopoulou</b></p> <p><b>C 1507 KEYNOTE:</b> ANALYTICAL PROCEDURE FOR SEISMIC ASSESSMENT OF MASONRY BUILDINGS WITH HISTORICAL VALUE  <i>Pardalopoulos Stylianos, Kontari Maria, Pantazopoulou Stavroula</i></p> <p><b>C 1043 KEYNOTE:</b> DERIVATION OF FRAGILITY CURVES FOR TRADITIONAL TOWER-FRAMED MASONRY BUILDINGS USING NONLINEAR STATIC ANALYSIS  <i>Kouris Leonidas, Kappos Andreas</i></p> <p><b>C 1467</b> SEISMIC LOAD ASSESSMENT FOR MASONRY MONUMENTAL BUILDINGS  <i>Salonikios Thomas, Morfidis Konstantinos, Lekidis Vasilios</i></p> <p><b>C 1553</b> SEISMIC ASSESSMENT OF A NON – SYMMETRIC STONE MASONRY BUILDING WITH FLEXIBLE FLOORS  <i>Karantoni Fillitsa, Manalis I.C.</i></p> <p><b>C 1596</b> REHABILITATION OF A PARTIALLY COLLAPSED MASONRY TRADITIONAL TOBACCO WAREHOUSE OF THE LATE 19TH CENTURY  <i>Chalioris Constantin, Favvata Maria, Alexandri Venetia, Karayannis Chris</i></p>	Room 11

## DAY 2 - THURSDAY, JUNE 13

Thu 08:30 – 10:30	<p><b>SEECCM MS 15: COMPUTATIONAL CONTACT MECHANICS - I</b>  <i>Minisymposium Organizers: N. Moës, G. Anciaux, M. Paggi</i>  <b>Chair: M. Paggi</b></p> <p><b>S 2055</b> COUPLING OF ODE- AND DAE-INTEGRATION WITH THE TIME-STEPPING INTEGRATION METHOD FOR MULTIBODY SYSTEMS WITH IMPACTS AND FRICTION  <i>Esefeld Bastian, Schindler Thorsten, Ulbrich Heinz</i></p> <p><b>S 2069</b> CONTACT ANALYSIS IN PRESENCE OF UNIDIRECTIONAL CYLINDRICAL FIBERS WITHIN A MATRIX AND COMPARISON WITH THE HOMOGENIZED ANISOTROPIC SOLUTION  <i>Nélias Daniel, Leroux Julien, Bagault Caroline, Baietto Marie-Christine</i></p> <p><b>S 2075</b> A PARALLEL SOLUTION ALGORITHM FOR THE CONTACT SIMULATION OF ROUGH SURFACES WITH LARGE SAMPLE SIZE  <i>Paggi Marco, Barber James</i></p> <p><b>S 2084</b> A NEW COUPLED X-FEM/ LEVEL-SET STRATEGY TO SOLVE CONTACT PROBLEM  <i>Graveleau Matthieu, Moës Nicolas, Chevaugeon Nicolas</i></p>	Room 12
Thu 10:30 – 11:00	Coffee Break	

## DAY 2 - THURSDAY, JUNE 13

Thu 11:00 – 13:00	<b>SEMI-PLENARY LECTURES – I</b>	
	<p><b>Chair: A. Combescure</b></p> <p><b>S 2151</b> PARTICLE METHODS: THE BEST SOLUTION FOR COMPUTATIONAL FLUID DYNAMIC PROBLEMS <i>Idelsohn Sergio, Oñate Eugenio, Nigro Norberto, Marti Julio, Becker Pablo, Gimenez Juan</i></p> <p><b>C 1166</b> TIME REVERSAL AS A TOOL FOR SOLVING INVERSE PROBLEMS <i>Givoli Dan, Amit Eyal, Turkel Eli</i></p> <p><b>C 1214</b> RECENT DEVELOPMENTS IN DISCONTINUOUS WAVE PROPAGATION ALGORITHMS: THERE IS PLENTY ROOM FOR IMPROVING SECOND-ORDER METHODS <i>Park K. C., Cho S. S., Huh H.</i></p>	<b>Room 1</b>
	<p><b>Chair: K. Tamma</b></p> <p><b>C 1749</b> EARTHQUAKE SOIL STRUCTURE INTERACTION FOR NUCLEAR POWER PLANTS, MODELING AND COMPUTATIONAL ISSUES <i>Jeremić Boris</i></p> <p><b>C 1421</b> THE USE OF BAYESIAN MODEL UPDATING IN STOCHASTIC DESIGN PROBLEMS <i>Jensen Hector, Vergara Camila</i></p> <p><b>C 1744</b> CHALLENGES IN SPACE VEHICLE STRUCTURAL DYNAMICS <i>Stavriniadis Constantinos</i></p>	<b>Room 4</b>
Thu 13:00 – 14:30	<b>Lunch Time</b>	

## DAY 2 - THURSDAY, JUNE 13

Thu 14:30 – 16:30	<b>SEMI-PLENARY LECTURES - II</b>	
	<p><b>Chair: P. Steinmann</b></p> <p><b>C 1480</b> EMBEDDED BOUNDARY CONDITIONS FOR THIN PLATES <i>Harari Isaac, Grosu Eran</i></p> <p><b>S 2152</b> TRANSITION FROM DAMAGE TO FRACTURE WITH THE THICK LEVEL SET MODEL <i>Moës Nicolas</i></p> <p><b>S 2087</b> INVERSE AND IDENTIFICATION PROBLEMS IN CONTINUUM MECHANICS <i>Matthies Hermann</i></p>	Room 1
	<p><b>Chair: S. Yoshimura</b></p> <p><b>S 2078</b> INTEGRATING BOUNDARY REPRESENTATION, SOLID MODELING AND STRUCTURAL ANALYSIS <i>Rank Ernst, Bog Tino, Kollmannsberger Stefan, Özcan Ali, Ruess Martin</i></p> <p><b>C 1728</b> APPLICATION OF HPC TO EARTHQUAKE ENGINEERING - SEISMIC STRUCTURE RESPONSE ANALYSIS AND URBAN AREA EARTHQUAKE SIMULATION <i>Hori Muneo, Tanaka Seizo, Ichimura Tsuyoshi, Lalith Maggededaera, Miyamura Tomoshi, Ogino Masao, Okazawa Shigenobu</i></p> <p><b>C 1423</b> OPTIMIZATION APPROACHES TO SEISMIC PERFORMANCE DESIGN OF BUILDING FRAMES <i>Ohsaki Makoto</i></p>	Room 4
Thu 16:30 – 17:00	<b>Coffee Break</b>	



## DAY 2 - THURSDAY, JUNE 13

Thu 17:00 – 19:00	TECHNICAL SESSIONS	
Thu 17:00 – 19:00	<p><b>SEECM RS 4: COMPUTATIONAL NANOSCIENCE AND NANOTECHNOLOGY</b> <i>Chair: S. Adhikari</i></p> <p><b>C 1722 KEYNOTE: NONLOCAL MODAL ANALYSIS FOR NANOSCALE DYNAMICAL SYSTEMS</b> <i>Adhikari Sondipon, Gilchrist Daniel, Murmu Tony, McCarthy Michael</i></p> <p><b>S 2015 VIBRATION AND ELASTIC BUCKLING ANALYSES OF SINGLE-WALLED CARBON NANOCONES</b> <i>Baykasoglu Cengiz, Celebi Alper Tunga, Icer Esra, Mugan Ata</i></p> <p><b>S 2028 NUMERICAL ANALYSIS ABOUT THE INFLUENCE OF INAPPROPRIATE SHAPE OF THE CROSS-SECTION OF MICROCHANNELS IN LAMINAR FLOW</b> <i>Hollweg Fabiano da Rosa, Oliveski Rejane de Césaró, Dalla Corte Marcelo</i></p> <p><b>S 2077 NONLINEAR FRACTURE ANALYSIS OF CARBON NANOTUBES WITH STONE-WALES DEFECTS</b> <i>Baykasoglu Cengiz, Icer Esra, Celebi Alper Tunga, Mugan Ata</i></p> <p><b>SEECM RS 14: SMART MATERIALS AND STRUCTURES</b></p> <p><b>S 2107 FOUR-FIELD INTERACTIONS IN THE STRUCTURAL ANALYSIS OF MULTILAYERED SMART PLATES AND SHELLS</b> <i>Brischetto Salvatore</i></p>	Room 1
Thu 17:00 – 19:00	<p><b>SEECM RS 1: BIOMECHANICS</b> <i>Chair: M. Kojic</i></p> <p><b>S 2042 BLOOD FLOW SIMULATION IN THE AORTA PASSING THROUGH THE AORTIC ORIFICE BY VIRTUAL FLUX METHOD</b> <i>Fukui Tomohiro, Morinishi Koji</i></p> <p><b>S 2048 COMPUTATIONAL SIMULATION OF INTERNAL FLOW IN THE LEFT VENTRICULAR DISPLACEMENT PUMP MODEL</b> <i>Tabuchi Tomoyuki, Fukui Tomohiro, Morinishi Koji</i></p> <p><b>S 2090 COMPUTATIONAL BIOMECHANICS ON BLOOD FLOW FROM CELLULAR TO ORGAN SCALES</b> <i>Yamaguchi Takami, Imai Yohsuke, Ishikawa Takuji</i></p> <p><b>S 2139 MATERIAL CHARACTERIZATION ISSUES IN FEA OF LONG BONES</b> <i>Korunovic Nikola, Trajanovic Miroslav, Stevanovic Dalibor, Vitkovic Nikola, Stojkovic Milos, Milovanovic Jelena, Ilic Dragana</i></p> <p><b>SEECM RS 2: CAD, CAM AND CAE</b></p> <p><b>S 2065 DESIGN STUDY OF ANATOMICALLY SHAPED LATTICED SCAFFOLDS FOR THE BONE TISSUE RECOVERY</b> <i>Stojkovic Milos, Korunovic Nikola, Trajanovic Miroslav, Milovanovic Jelena, Trifunovic Milan, Vitkovic Nikola</i></p>	Room 2

## DAY 2 - THURSDAY, JUNE 13

Thu 17:00 – 19:00	<p><b>COMPDYN MS 15: NUMERICAL SIMULATION AND EXPERIMENTAL VERIFICATION ON PROBLEMS IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS - III</b>  <b>Minisymposium Organizer: G. Manos</b>  <b>Chair: G. Manos</b></p> <p><b>C 1102 KEYNOTE:</b> NUMERICAL AND EXPERIMENTAL STUDY OF THE ROCKING RESPONSE OF UNANCHORED BODY TO HORIZONTAL BASE EXCITATION  <i>Manos George, Petalas Apostolos, Demosthenous Milton</i></p> <p><b>C 1097</b> IN-PLANE BEHAVIOUR OF MASONRY INFILLS WITHIN MULTI-STOREY R/C FRAMES SUBJECTED TO SEISMIC TYPE LOADS AND THEIR UTILIZATION IN RETROFITTING  <i>Manos George, Soulis Vasilios, Thauampteh Jafar</i></p> <p><b>C 1096</b> STUDY OF THE IN-PLANE BEHAVIOUR OF GROUND FLOOR REINFORCED CONCRETE (R/C) FRAMES RETROFITTED WITH JACKETING AND AN ENCASED R/C PANEL IN ORDER TO WITHSTAND SEISMIC FORCES  <i>Manos George, Soulis Vasilios, Katakalos Kostas, Koidis George</i></p> <p><b>C 1186</b> ANALYTICAL AND EXPERIMENTAL INVESTIGATION ON THE SEISMIC EFFICIENCY OF A NEW RESTRAINING SYSTEM FOR LIMITING THE SEISMIC MOVEMENTS OF THE BRIDGE DECK  <i>Tegou Sevasti, Tegos Ioannis</i></p> <p><b>C 1380</b> EXPERIMENTAL AND NUMERICAL INVESTIGATION OF RECTANGULAR R/C BEAMS RETROFITTED AGAINST SHEAR UTILISING FRP STRIPS  <i>Manos George, Katakalos Konstantinos, Theofanous Marios, Kozikopoulos Evaggelos</i></p> <p><b>C 1642</b> DESIGN AND VERIFICATION OF A DYNAMIC EXPERIMENTAL CAMPAIGN ON ANCHORING SYSTEMS THROUGH MACRO AND MICRO NUMERICAL MODELS  <i>Mazzon Nicola, Tecchio Giovanni, Abate Marco, Ali Santoro Daniele, Gualano Daniele, Modena Claudio</i></p>	Room 3
Thu 17:00 – 19:00	<p><b>COMPDYN MS 27: UNCERTAINTY QUANTIFICATION IN COMPUTATIONAL DYNAMICS - II</b>  <b>Minisymposium Organizers: C. Soize, R. Ghanem, G. Schueller</b>  <b>Chair: T. Ritto</b></p> <p><b>C 1057</b> STABILITY AND RESPONSE ANALYSIS OF A PIPE WITH INTERNAL FLOW ANALYZED WITH AN UNCERTAIN COMPUTATIONAL MODEL  <i>Ritto Thiago, Soize Christian, Rochinha Fernando, Sampaio Rubens</i></p> <p><b>C 1206</b> FORMULATION OF A STOCHASTIC SEMI ANALYTICAL FINITE ELEMENT METHOD FOR UNCERTAIN MEDIA  <i>Bouchoucha Faker, Ichchou Mohamed, Haddar Mohamed</i></p> <p><b>C 1478</b> CHARACTERIZATION OF THE INFLUENCE OF RAIL WEAR ON TRAIN DYNAMICS  <i>Lestoille Nicolas, Perrin Guillaume, Funfschilling Christine</i></p>	Room 4

**DAY 2 - THURSDAY, JUNE 13**

	<p><b>C 1586</b> DISCONTINUOUS GALERKIN METHODS FOR HIGH-DIMENSIONAL FOKKER-PLANCK EQUATIONS IN STOCHASTIC DYNAMICS <i>Loerke Friederike, Nackenhorst Udo</i></p> <p><b>S 2095</b> ANALYSIS OF THE NONLINEAR STOCHASTIC DYNAMICS OF AN ELASTIC BAR WITH AN ATTACHED END MASS <i>Cunha Jr Americo, Sampaio Rubens</i></p> <p><b>C 1153</b> LOW RANK TENSOR APPROXIMATIONS FOR THE STOCHASTIC STEADY-STATE STRUCTURAL DYNAMIC RESPONSE <i>Chevreuril Mathilde, Nouy Anthony</i></p>	
<p><b>Thu 17:00 – 19:00</b></p>	<p><b>COMPdyn MS 3: PROGRESS AND CHALLENGES IN SPACECRAFT STRUCTURAL DYNAMICS - II</b> <i>Minisymposium Organizers: A. Calvi, G. Aglietti</i> <i>Chair: A. Calvi</i></p> <p><b>C 1643 KEYNOTE:</b> APPLICATIONS FOR MOTORISED MOMENTUM EXCHANGE TETHERS <i>Cartmell Matthew</i></p> <p><b>C 1299</b> REDUCTION OF OVERTESTING DURING BASE-DRIVE RANDOM VIBRATION TESTS FOR THE EUCLID SPACECRAFT HARDWARE <i>Calvi Adriano</i></p> <p><b>C 1323</b> AN EASY-TO-IMPLEMENT COMPUTATIONAL METHOD FOR THE SPACECRAFT SINE TEST-PREDICTION WITH PARTICULAR EMPHASIS ON THE MODAL CONTRIBUTIONS <i>Nali Pietro, Mucciante Luigi, Caccamo Luca</i></p> <p><b>C 1636</b> AN EXPERIMENTAL APPROACH FOR THE CHARACTERIZATION AND INTEGRATION OF SOURCES OF MICROVIBRATION <i>Aglietti Guglielmo, Zhang Zhe, Richardson Guy, le Page Brian, Addari Daniele</i></p>	<p><b>Room 5</b></p>
<p><b>Thu 17:00 – 19:00</b></p>	<p><b>COMPdyn RS 14: OPTIMUM DESIGN IN STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING</b> <i>Chair: N. Lagaros</i></p> <p><b>C 1113</b> TOPOLOGY AND LAY-UP OPTIMIZATION OF MULTI-LAYERED COMPOSITE MATERIALS <i>Delgado Gabriel, Allaire Grégoire</i></p> <p><b>C 1620</b> COMPUTATIONAL ASSESSMENT OF THE PROGRESSIVE COLLAPSE OF A FIVE STOREY STRUCTURE CONSIDERING TWO DIFFERENT BUILDING CODES <i>Oliveira Cláudio, Berke Péter, Silveira Ricardo, Massart Thierry</i></p> <p><b>C 1684</b> OPTIMUM DESIGN OF BASE ISOLATED REINFORCED CONCRETE BUILDINGS <i>Chatzidaki Fani, Mitropoulou Chara, Lagaros Nikos, Papadrakakis Manolis</i></p>	<p><b>Room 7</b></p>

## DAY 2 - THURSDAY, JUNE 13

	<p><b>C 1719</b> NON LINEAR STATIC ANALYSIS OF A PLAN IRREGULAR BUILDING ACCORDING TO EC8 PROVISIONS <i>Magliulo Gennaro, Maddaloni Giuseppe, Cosenza Edoardo</i></p> <p><b>C 1181</b> OPTIMAL DESIGN OF VIBRATING RING-STIFFENED CYLINDRICAL SHELL <i>Filippov Sergei, Naumova Natalia</i></p>	
Thu 17:00 – 19:00	<p><b>COMPDYN MS 25: SOFTWARE DEVELOPMENT IN THE FIELD OF EARTHQUAKE ENGINEERING AND STRUCTURAL DYNAMICS</b> <i>Minisymposium Organizers: A. Sextos</i> <i>Chair: S. Bousias</i></p> <p><b>C 1183</b> ISSUES ON THE IMPLEMENTATION OF DISTRIBUTED HYBRID TESTING <i>Bousias Stathis</i></p> <p><b>C 1678</b> VALIDATION OF NUMERICAL MODELS FOR RC COLUMNS SUBJECTED TO CYCLIC LOAD <i>del Vecchio Ciro, di Sarno Luigi, Kwon Oh-Sung, Prota Andrea</i></p> <p><b>C 1676</b> CABLE-STAYED BRIDGES SUBJECTED TO NEAR-FAULT VERTICAL MOTION <i>Kuleli Muge, Elnashai Amr</i></p> <p><b>C 1291</b> ROBUSTNESS AND RESILIENCE OF DISTRIBUTED COMPUTING IN SEISMIC ASSESSMENT OF BRIDGES <i>Taskari Olympia, Sextos Anastasios</i></p> <p><b>C 1156</b> BRIDGE-WIZARD: EXPERT SYSTEM FOR FINITE ELEMENT MODELING AND POST PROCESSING OF BRIDGE STRUCTURES <i>Sextos Anastasios, Lesgidis Nikolaos</i></p> <p><b>S 2145</b> NUMERICAL INVESTIGATION OF A FULL-SCALE RC BRIDGE THROUGH 3D DETAILED NONLINEAR LIMIT-STATE SIMULATIONS <i>Markou George</i></p>	Room 8
Thu 17:00 – 19:00	<p><b>COMPDYN RS 33: WAVES AND COMPUTATION</b> <i>Chair: M. Fragiadakis</i></p> <p><b>C 1146</b> ANALYSIS OF LOCAL SITE EFFECTS ON THE SEISMIC RESPONSE OF SOIL PROFILES USING A 1-DIRECTIONAL 3-COMPONENT PROPAGATION MODEL <i>Santisi D'avila Maria Paola, Semblat Jean-Francois</i></p> <p><b>C 1178</b> COMPUTATIONAL MODELING OF THE WAVES PROPAGATION IN A BLOCK MEDIUM WITH VISCOELASTIC INTERLAYERS <i>Sadovskaya Oxana, Sadovskii Vladimir, Varygina Mariya</i></p> <p><b>C 1220</b> LOCALIZED WAVES IN TWO-LAYERS FLUID <i>Indeitsev Dmitry, Abramyan Andrey, Mochalova Yulia</i></p>	Room 9

## DAY 2 - THURSDAY, JUNE 13

	<p><b>COMPDYN RS 25: SIMULATION METHODS FOR DYNAMIC PROBLEMS - II</b></p> <p><b>C 1703</b> MATH SIMULATION OF CONTACT INTERACTION DURING SPACECRAFT DOCKING AND ROBOTIC ASSEMBLY OPERATIONS <i>Yaskevich Andrey</i></p> <p><b>C 1720</b> A PROCEDURE TO SELECT TIME-HISTORIES FOR SHAKING TABLE TESTS ON NONSTRUCTURAL COMPONENTS <i>Magliulo Gennaro, Maddaloni Giuseppe, Petrone Crescenzo</i></p> <p><b>C 1088</b> FREE VIBRATIONS OF A CYLINDRICAL SHELL MADE OF AN ANISOTROPIC MATERIAL <i>Tovstik Petr, Tovstik Tatiana</i></p> <p><b>C 1282</b> FREE VIBRATION ANALYSIS OF CIRCULAR PLATES USING THE NONCLASSICAL SHELLS THEORIES <i>Bauer Svetlana, Voronkova Eva</i></p>	
Thu 17:00 – 19:00	<p><b>SEECM MS 15: COMPUTATIONAL CONTACT MECHANICS - II</b> <i>Minisymposium Organizers: N. Moës, G. Anciaux, M. Paggi</i> <i>Chair: N. Moës</i></p> <p><b>S 2098</b> INVESTIGATION OF THE LUBRICATED SLIDING FRICTION OF NANO-SCALE ROUGH SURFACES <i>Anciaux Guillaume, Spijker Peter, Molinari Jean François</i></p> <p><b>S 2104</b> COARSENEED THIRD BODY GRAINS ACCOMMODATE SLIDING BETWEEN PURE NANOCRYSTALLINE SURFACES <i>Romero Pedro A., Järvi Tommi T., Beckmann Nils, Moseler Michael</i></p> <p><b>S 2133</b> ABOUT THE IDENTIFICATION OF GENERIC TRIBOLOGICAL PARAMETERS, SOPHISTICATED COMPLETELY ANALYTICAL CONTACT MODELLING AND THE EFFECTIVE INDENTER CONCEPT APPLIED TO A COMPREHENSIVE 3D INCREMENTAL WEAR AND FRETTING MODEL FOR LAYERED SURFACES <i>Schwarzer Norbert</i></p> <p><b>S 2134</b> QUALITATIVE FAILURE ANALYSIS ON LAMINATE STRUCTURES USING COMPREHENSIVE ANALYTICAL LINEAR ELASTIC CONTACT MODELLING <i>Schwarzer Norbert, Heuer-Schwarzer Peggy</i></p>	Room 10
Thu 17:00 – 19:00	<p><b>COMPDYN RS 6: DYNAMICS OF COUPLED PROBLEMS</b> <i>Chair: V.Plevris</i></p> <p><b>C 1208</b> DYNAMIC EFFECT OF RAILWAY VEHICLE ON SEISMIC RESPONSE OF RAILWAY STRUCTURE <i>Tokunaga Munemasa, Minoura Shintaro, Sogabe Masamichi</i></p> <p><b>C 1247</b> DYNAMIC COMPUTATION AND DESIGN OF A WORLD'S RECORD DEATH-RIDE <i>Denoël Vincent, Canor Thomas, Demanet Johan</i></p>	Room 11

## DAY 2 - THURSDAY, JUNE 13

	<p><b>C 1308</b> SNAP THROUGH OF CURVED STRUCTURES IN THERMAL ENVIRONMENTS <i>Stanciulescu Ilinca, Chandra Yenny</i></p> <p><b>C 1561</b> MODELLING A LARGE-SCALE UNIAXIAL SHAKING TABLE FACILITY <i>Ceresa Paola, Brezzi Franco, Calvi Gian Michele</i></p> <p><b>C 1686</b> ON NUMERICAL MODELING OF DYNAMICS OF IRREVERSIBLE DEFORMING AND FRACTURE OF OIL-BEARING LAYER IN THE VICINITY OF A BOREHOLE <i>Kiselev Alexey, Zacharov Pavel</i></p>	
Thu 17:00 – 19:00	<p><b>COMPdyn MS 28: PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS - I</b> <i>Minisymposium Organizers: S. Sorokin</i> <i>Chair: S. Sorokin</i></p> <p><b>C 1165 KEYNOTE:</b> DYNAMIC MATERIALS AS MEDIA NATURAL FOR DYNAMICS <i>Lurie Konstantin</i></p> <p><b>C 1042</b> ANALYSIS OF OSCILLATIONS OF ONE-DIMENSIONAL SPATIALLY PERIODIC STRUCTURES. AN UNCONVENTIONAL APPROACH AND SOME NEW EFFECTS <i>Sorokin Vladislav</i></p> <p><b>C 1120</b> ON THE EFFECT OF DAMPING ON DISPERSION CURVES IN PLATES <i>Manconi Elisabetta, Sorokin Sergey</i></p> <p><b>C 1177</b> MODELLING TOOL FOR ELASTIC WAVE GUIDE PROPERTIES OF FLEXIBLE PIPES <i>Morsbøl Jonas, Sorokin Sergey</i></p> <p><b>C 1086</b> A TWO-PARAMETER FAMILY OF TIMOSHENKO DISPERSION RELATIONS <i>Sorokin Sergey, Chapman John</i></p>	Room 12

## DAY 3 - FRIDAY, JUNE 14

Fri 09:00 – 10:30	TECHNICAL SESSIONS	
Fri 09:00 – 10:30	<p><b>COMPdyn MS 40: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - I</b>  <b>Minisymposium Organizers: B. Stojadinovic, N. Makris</b>  <b>Chair: B. Stojadinovic</b></p> <p><b>C 1083 KEYNOTE:</b> ROCKING RESPONSE AND STABILITY ANALYSIS OF AN ARRAY OF FREE-STANDING COLUMNS CAPPED WITH A FREE-STANDING RIGID BEAM  <i>Makris Nicos, Vassiliou Michalis</i></p> <p><b>C 1063</b> A NEW PERFORMANCE-BASED DESIGN METHODOLOGY FOR CONTROLLED ROCKING STEEL FRAMES  <i>Wiebe Lydell, Christopoulos Constantin</i></p> <p><b>C 1084</b> ROCKING RESPONSE OF SLENDER, FLEXIBLE COLUMNS UNDER PULSE EXCITATION  <i>Vassiliou Michalis, Mackie Kevin, Stojadinović Božidar</i></p> <p><b>C 1126</b> THE ROLE OF ROTATION CENTRE IN PREDICTING ROCKING RESPONSE OF A CONTROLLED ROCKING STRUCTURE  <i>Ma Quincy, Butterworth John</i></p> <p><b>C 1139</b> TOWARDS A UNIFIED DESCRIPTION OF ROCKING STRUCTURES  <i>DeJong Matthew, Dimitrakopoulos Elias</i></p>	Room 1
Fri 09:00 – 10:30	<p><b>COMPdyn MS 36: SEISMIC SAFETY ASSESSMENT OF STRUCTURES - I</b>  <b>Minisymposium Organizers: R. Delgado, A. Arêde, P. Delgado</b>  <b>Chair: P. Delgado</b></p> <p><b>C 1143</b> DESIGN OF DISSIPATIVE BRACES FOR AN EXISTING STRATEGIC BUILDING WITH A PUSHOVER BASED PROCEDURE  <i>Bergami Alessandro Vittorio, Nuti Camillo</i></p> <p><b>C 1170</b> HEURISTIC APPROACH IN STRUCTURAL STRENGTH EVALUATION AND RETROFITTING OF EXISTING BUILDINGS IN SEISMIC AREAS  <i>Gluck Nicolae, Farhat Rina, Eid Rami, Tzadka Uri</i></p> <p><b>C 1325</b> ASSESSMENT OF THE SEISMIC PERFORMANCES OF MODERN UNREINFORCED MULTI-STOREY CLAY MASONRY BUILDINGS  <i>Degée Hervé, Mordant Christophe, Lascar Laurentiu, Vasseur Luc</i></p> <p><b>C 1365</b> EVALUATION OF DAMAGE IN REINFORCED CONCRETE COLUMNS UNDER BIAXIAL LOADING  <i>Rodrigues Hugo, Arêde António, Varum Humberto, Costa Aníbal</i></p>	Room 2

## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1469</b> ESTIMATING ROOF-LEVEL ACCELERATION SPECTRA FOR SINGLE STOREY BUILDINGS <i>Sullivan Timothy, Calvi Paolo, Welch David</i></p>	
Fri 09:00 – 10:30	<p><b>COMPdyn RS 13: NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - I</b> <b>Chair: V. Papadopoulos</b></p> <p><b>C 1167</b> APPLICATION OF GENERALIZED PLASTICITY MODEL IN SQUARE CFT COLUMN ANALYSIS <i>Kostic Svetlana, C. Filippou Filip, Deretic-Stojanovic Biljana</i></p> <p><b>C 1253</b> CONTROL OF THE EIGENSOLUTIONS OF A HARMONICALLY DRIVEN COMPLIANT STRUCTURE <i>Peters Hugo J., Tiso Paolo, Goosen Johannes F.L., van Keulen Fred</i></p> <p><b>C 1304</b> DEVELOPMENT OF AN EFFICIENT UNSTRUCTURED FINITE VOLUME SOLVER FOR A NEW CONSERVATION LAW IN FAST STRUCTURAL DYNAMICS <i>Aguirre Miquel, Gil Antonio, Bonet Javier, Lee Chun Hean</i></p> <p><b>C 1321</b> REDUCTION METHOD APPLIED TO VIBRATIONS OF VISCOELASTIC SANDWICH SHELLS <i>Duigou Laëtitia, Boumediene Faiza, Cadou Jean-Marc, Daya El Mostafa</i></p> <p><b>C 1417</b> EFFECT OF POUNDING ON THE SEISMIC RESPONSE OF TWO ADJACENT ASYMMETRIC BUILDINGS UNDER SINGLE UNI-DIRECTIONAL GROUND MOTION <i>Fiore Alessandra, Marano Giuseppe</i></p>	Room 3
Fri 09:00 – 10:30	<p><b>COMPdyn RS 16: PERFORMANCE-BASED ENGINEERING - I</b> <b>Chair: N. Lagaros</b></p> <p><b>C 1095</b> VULNERABILITY ASSESSMENT OF RC BUILDINGS TO LANDSLIDE DISPLACEMENTS. APPLICATION TO CORNIGLIO CASE HISTORY, ITALY. <i>Fotopoulou Stavroula, Callerio Alberto, Pitilakis Kyriazis</i></p> <p><b>C 1301</b> PERFORMANCE-BASED SEISMIC DESIGN OF A RETAINING WALL <i>Jurado Carlos</i></p> <p><b>C 1524</b> MECHANISM BASED ASSESSMENT OF DAMAGED BUILDING'S RESIDUAL CAPACITY <i>Polese Maria, Marcolini Marco, Prota Andrea, Zuccaro Giulio</i></p>	Room 4



## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1580</b> IMPROVED PROCEDURE FOR DESIGN AND EVALUATION OF STRUCTURES: SINGLE-DEGREE-OF-FREEDOM BILINEAR SYSTEMS <i>Chikh Benazouz, Moussa Leblouba, Mehani Youcef, Zerzour Ali, Bechtoula Hakim, Benyoucef Abdelkader</i></p> <p><b>C 1623</b> EXPERIMENTAL RESEARCH OF SHEAR STRENGTH MODELS FOR REINFORCED CONCRETE MEMBERS <i>Syntzirma Despina, Pantazopoulou Stavroula</i></p>	
Fri 09:00 – 10:30	<p><b>COMPdyn MS 24: ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - I</b> <b>Minisymposium Organizers: D. Givoli, S. Geza</b> <b>Chair: D. Givoli</b></p> <p><b>C 1038</b> THE PARTITION OF UNITY METHOD FOR ELASTIC WAVE PROBLEMS IN 3D <i>Mahmood M S, Laghrouche O, El Kacimi A, Trevelyan J</i></p> <p><b>C 1061</b> A PRIORI ENERGY ESTIMATES FOR A CLASS OF DG APPROXIMATIONS IN ELASTODYNAMICS <i>Antonietti Paola Francesca, Ayuso de Dios Blanca, Mazzieri Ilario, Quarteroni Alfio</i></p> <p><b>C 1107</b> COUPLING OF FINITE ELEMENTS AND HIERARCHICAL BOUNDARY ELEMENTS FOR DYNAMIC SOIL-STRUCTURE INTERACTION PROBLEMS <i>Coulier Pieter, François Stijn, Lombaert Geert, Degrande Geert</i></p> <p><b>C 1114</b> HYBRID SCHEME FOR SIMULATION OF SEISMIC WAVE PROPAGATION IN PRESENCE OF ANISOTROPY <i>Lisitsa Vadim, Tcheverda Vladimir, Vishnevsky Dmitry</i></p>	Room 5
Fri 09:00 – 10:30	<p><b>COMPdyn MS 21: SEISMIC BEHAVIOUR AND RETROFITTING OF MONUMENTS AND HISTORICAL BUILDINGS - I</b> <b>Minisymposium Organizer: I. Psycharis</b> <b>Chair: I. Psycharis</b></p> <p><b>C 1651 KEYNOTE:</b> EARTHQUAKE PROTECTION OF HISTORICAL BUILDINGS ACCORDING TO PROHITECH <i>Mazzolani Federico</i></p> <p><b>C 1505</b> SEISMIC PROTECTION OF MONUMENTS AND HISTORICAL BUILDINGS BY A SUSTAINABLE REDUCTION SYSTEM OF THE SEISMIC INPUT MOTION <i>Carydis Panayotis, Giannopoulos Vasileios, Athanasiou Egkolfios, Lebesis Nikolaos</i></p>	Room 7

### DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1062</b> THE EFFECT OF MULTIPLE EARTHQUAKE EXCITATIONS IN SEQUENCE ON ANCIENT MULTI-DRUM STRUCTURES <i>Papaloizou Loizos, Komodromos Petros</i></p> <p><b>C 1502</b> EFFECT OF DAMAGE ON THE DYNAMIC CHARACTERISTICS OF ST. NICHOLAS CATHEDRAL IN CYPRUS <i>Votsis Renos, Kyriakides Nicholas, Tantele Elia, Chrysostomou Christis</i></p>	
Fri 09:00 – 10:30	<p><b>COMPDYN RS 3: COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - II</b> <b>Chair: G. Uva</b></p> <p><b>C 1053</b> BASIC DISPLACEMENT FUNCTIONS IN DYNAMIC ANALYSIS OF AN ARCH DAM AS A CURVED BEAM RESTING ON A CONTINUES ELASTIC FOUNDATION <i>Hashemi Ashkan, Attarnejad Reza, Zarinkamar Shermineh</i></p> <p><b>C 1233</b> NUMERICAL MODELLING OF PILES GROUP UNDER SEISMIC LOADING IN COHESIVE SOILS : INCLINATION EFFECT <i>Hage Chehade Fadi, Sadek Marwan, Bachir Douaa</i></p> <p><b>C 1236</b> AN ANALYTICAL APPROACH FOR ASSESSMENT OF THE EFFECTS OF INFILL PANELS IN RC FRAMES <i>Casolo Siro, Porco Francesco, Uva Giuseppina</i></p> <p><b>C 1400</b> ALTERNATIVE INTEGRATORS AND PARALLEL COMPUTING FOR EFFICIENT NONLINEAR RESPONSE HISTORY ANALYSES <i>Mosalam Khalid, Liang Xiao, Günay Selim, Schellenberg Andreas</i></p>	Room 8
Fri 09:00 – 10:30	<p><b>SEECM MS 10: SOME İNTERACTION PROBLEMS IN COMPUTATIONAL MECHANICS - I</b> <b>Minisymposium Organizers: U. Gulcat</b> <b>Chair: U. Gulcat</b></p> <p><b>S 2004</b> A PARALLEL FULLY COUPLED APPROACH FOR LARGE-SCALE FLUID-STRUCTURE INTERACTION PROBLEMS <i>Eken Ali, Sahin Mehmet</i></p> <p><b>S 2006</b> FLAPPING THIN AIRFOIL INTERACTING WITH THE GROUND <i>Gülçat Ülgen</i></p> <p><b>S 2033</b> INFLUENCE OF BLADE STRUCTURAL DEFORMATION ON WIND TURBINE ROTOR PERFORMANCE <i>Kalkan Akgün, Mecitoğlu Zahit</i></p>	Room 9

**DAY 3 - FRIDAY, JUNE 14**

	<p><b>S 2062</b> SOLUTION OF COUPLED LINEAR THERMOVISCOELASTICITY PROBLEMS WITH DUAL RECIPROCITY BOUNDARY ELEMENT METHOD (DRBEM): A COMPARISON OF DIRECT AND ITERATIVE SOLUTIONS <i>Baranoglu Besim</i></p>	
<p><b>Fri 09:00 – 10:30</b></p>	<p><b>SEECCM RS 5: COMPUTATIONAL SOLID AND STRUCTURAL MECHANICS - I</b> <b>Chair: G. Chatzigeorgiou</b></p> <p><b>S 2030</b> WARPING TRANSMISSION IN 3-D BEAM ELEMENT INCLUDING SECONDARY TORSIONAL MOMENT DEFORMATION EFFECT <i>Sapountzakis Evangelos, Tsipiras Vasileios, Gkesos Pavlos</i></p> <p><b>S 2111</b> EARTHQUAKE ANALYSIS OF AN OLD CYCLOPEAN CONCRETE DAM AND ITS SEISMIC RETROFIT WITH POST-TENSIONING ANCHORS. <i>Maltidis Georgios, Stempniewski Lothar</i></p> <p><b>S 2123</b> A HYBRID DISPLACEMENT BOUNDARY ELEMENT FORMULATION FOR REISSNER PLATE WITH QUADRATIC ELEMENTS <i>Naga Taha, Rashed Youssef</i></p> <p><b>SEECCM MS 12: NUMERICAL IMPLEMENTATION ON CONSTITUTIVE MODELS</b> <b>Minisymposium Organizer: S. Karamanos</b> <b>Chair: S. Karamanos</b></p> <p><b>S 2103</b> NUMERICAL SIMULATION OF PLASTIC BUCKLING IN STEEL CYLINDERS SUBJECTED TO CYCLIC BENDING <i>Varelis George, Karamanos Spyros</i></p> <p><b>S 2136</b> A METRIC THEORY OF RATE INDEPENDENT AND RATE DEPENDENT PLASTICITY: THEORETICAL AND COMPUTATIONAL ASPECTS <i>Panoskaltsis Vassilis, Soldatos Dimitris</i></p>	<p><b>Room 10</b></p>
<p><b>Fri 09:00 – 10:30</b></p>	<p><b>COMPDYN RS 9: HIGH-PERFORMANCE COMPUTING: PARALLEL, DISTRIBUTED, GRID COMPUTING TECHNOLOGIES</b> <b>Chair: P. Metsis</b></p> <p><b>C 1731 KEYNOTE:</b> A GENERAL FRAMEWORK FOR DYNAMIC SUBSTRUCTURING; REVIEW, HISTORY AND THEORY <i>de Klerk Dennis</i></p> <p><b>COMPDYN RS 26: SIMULATION OF SOUND AND VIBRATION</b> <b>C 1539</b> AN IMPROVED METHODOLOGY FOR THE VIRTUAL POINT TRANSFORMATION OF MEASURED FREQUENCY RESPONSE FUNCTIONS IN DYNAMIC SUBSTRUCTURING <i>van der Seijs Maarten, van den Bosch Dennis, Rixen Daniel, de Klerk Dennis</i></p>	<p><b>Room 11</b></p>

**DAY 3 - FRIDAY, JUNE 14**

	<p><b>SEECM MS 1: MESHLESS METHODS</b>  <i>Minisymposium Organizers: F. Auricchio, D. Asprone</i></p> <p><b>S 2142</b> STIFFNESS MATRIX COMPUTATION FOR ELEMENT FREE GALERKIN METHODS ON GPU  <i>Karatarakis Alexander, Metsis Panagiotis, Papadrakakis Manolis</i></p> <p><b>SEECM RS 11: HIGH PERFORMANCE AND PARALLEL COMPUTING</b></p> <p><b>S 2085</b> MULTILEVEL SPACE-TIME DOMAIN DECOMPOSITION METHODS FOR STOCHASTIC PARABOLIC PROBLEMS  <i>Cai Xiao-Chuan</i></p>	
<p><b>Fri 09:00 – 10:30</b></p>	<p><b>COMPdyn MS 28: PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS - II</b>  <i>Minisymposium Organizers: S. Sorokin</i>  <i>Chair: S. Sorokin</i></p> <p><b>C 1501 KEYNOTE:</b> EXCITATION OF PARAMETRIC RESONANCE IN MICRO BEAMS BY JOULE'S HEATING  <i>Sibgatullin Timur, Schreiber David, Krylov Slava</i></p> <p><b>C 1275</b> THE WKB APPROXIMATION AND PERIODICITY EFFECTS FOR PERTURBED HELICAL SPRINGS  <i>Nielsen Rasmus</i></p> <p><b>C 1424</b> ABOUT STABILITY OF TRANSVERSE VIBRATIONS PROVIDED BY LONGITUDINAL STEP-WISE LOADING  <i>Belyaev Alexander, Ilyin Dmitry, Morozov Nikita</i></p> <p><b>C 1432</b> MULTIMODE CHARACTER OF DYNAMICAL SYSTEMS AS A CAUSE OF THEIR COMPLEX ("CHAOTIC") BEHAVIOR  <i>Blekhman Iliya</i></p>	<p><b>Room 12</b></p>
<p><b>Fri 10:30 – 11:00</b></p>	<p><b>Coffee Break</b></p>	

## DAY 3 - FRIDAY, JUNE 14

<b>Fri 11:00 – 13:00</b>	<b>PLENARY LECTURES - II</b>	
	<p><b>Chair: H. Matthies</b></p> <p><b>S 2153</b> HIERARCHIC ISOGEOMETRIC ANALYSIS FOR SHELL STRUCTURES <i>Ramm Ekkehard, Bischoff Manfred</i></p> <p><b>S 2149</b> ASPECTS OF THE MODELLING AND SIMULATION OF MULTIFUNCTIONAL POLYMERS <i>Steinmann Paul</i></p> <p><b>C 1732</b> THE TIME DIMENSION AND INTEGRATORS: ISOCHRONOUS INTEGRATORS AND IMPLICIT/EXPLICIT FRAMEWORK FOR COMPUTATIONAL DYNAMICS AND SCIENCE AND ENGINEERING PROBLEMS <i>Tamma Kumar, Shimada Masao</i></p>	<b>Room 1</b>
<b>Fri 13:00 – 14:30</b>	<b>Lunch Time</b>	

## DAY 3 - FRIDAY, JUNE 14

Fri 14:30 – 16:30	TECHNICAL SESSIONS	
Fri 14:30 – 16:30	<p><b>COMPdyn MS 40: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - II</b>  <b>Minisymposium Organizers: B. Stojadinovic, N. Makris</b>  <b>Chair: B. Stojadinovic</b></p> <p><b>C 1415</b> INFLUENCE OF DIFFERENT DAMPING COMPONENTS ON ROCKING STRUCTURAL MEMBERS  <i>Sritharan Sri, Nazari Maryam, Aaleti Sriram</i></p> <p><b>C 1358</b> COMPUTATIONAL MODELLING OF SELF-CENTERING PRECAST CONCRETE WALLS  <i>Watkins Jonathan, Henry Richard, Sirtharan Sri</i></p> <p><b>C 1174</b> ROCKING RESPONSE OF FREE-STANDING FURNITURES UNDER EARTHQUAKE FLOOR MOTIONS  <i>Chiriatti Marco, Cimellaro Gian Paolo</i></p> <p><b>C 1265</b> A PROBABILISTIC INVESTIGATION OF THE TOPPLING OF RIGID BODIES EXPERIENCING 3D GROUND MOTIONS  <i>Chatzis Manolis, Smyth Andrew</i></p> <p><b>C 1290</b> SEISMIC RESPONSE OF POST-TENSIONED STEEL ROCKING CONCENTRICALLY BRACED FRAMES WITH VARIOUS ASPECT RATIOS  <i>Chancellor Brent, Sause Richard, Ricles James, Tahmasebi Ebrahim, Akbas Tugce</i></p> <p><b>C 1408</b> BALANCING THE BENEFICIAL CONTRIBUTIONS OF FOUNDATION ROCKING AND STRUCTURAL YIELDING TO IMPROVE STRUCTURAL SEISMIC RESILIENCE  <i>Liu Weian, Hutchinson Tara, Kutter Bruce, Hakhamaneshi Manouchehr, Gavras Andreas- Gerasimos</i></p> <p><b>C 1412</b> ROCKING RESPONSE OF TALLER REINFORCED CONCRETE WALLS  <i>Lemieux Marc- André, Koboevic Sanda</i></p>	Room 1

## DAY 3 - FRIDAY, JUNE 14

<b>Fri 14:30 – 16:30</b>	<p><b>COMPdyn MS 36: SEISMIC SAFETY ASSESSMENT OF STRUCTURES - II</b>  <b>Minisymposium Organizers:</b> R. Delgado, A. Arêde, P. Delgado  <b>Chair:</b> A. Arêde</p> <p><b>C 1545</b> A CASE STUDY OF COLLAPSE DURING THE 2009 L'AQUILA (ITALY) EARTHQUAKE  <i>Mulas Maria Gabriella, Martinelli Luca, Perotti Federico</i></p> <p><b>C 1385</b> EXPERIMENTAL AND NUMERICAL STUDY OF RC COLUMNS UNDER BIAXIAL LOADING: AS BUILT  <i>Silva José Pedro, Rodrigues Hugo, Arêde António, Rocha Patrício, Monteiro André</i></p> <p><b>C 1625</b> EXPERIMENTAL CYCLIC TESTS OF HOLLOW PIERS WITH DIFFERENT RETROFIT STRATEGIES  <i>Delgado Pedro, Rocha Patrício, Arêde António, Vila Pouca Nelson, Costa Aníbal, Delgado Raimundo</i></p> <p><b>C 1631</b> SAFETY ASSESSMENT OF BRIDGES UNDER EARTHQUAKES  <i>Delgado Pedro, Costa Aníbal, Delgado Raimundo</i></p> <p><b>C 1733</b> EXPERIMENTAL EVALUATION OF THE OUT-OF-PLANE BEHAVIOUR OF TRADITIONAL STONE MASONRY BUILDINGS IN AZORES, PORTUGAL  <i>Arêde António, Costa Aníbal, Costa Alexandre, Ferreira Tiago, Gomes Ana, Varum Humberto</i></p> <p><b>C 1735</b> STUDY ON THE DEFINITION OF ANALYTICAL FRAGILITY FUNCTIONS FOR CONCRETE BUILDINGS  <i>Marques Mário, Amarin Epiphannie, Martins Luís, Araújo Miguel, Delgado Raimundo</i></p> <p><b>C 1736</b> INFLUENCE OF CODE-BASED RECORD SELECTION METHODS ON THE SEISMIC ASSESSMENT OF EXISTING STEEL BUILDINGS  <i>Araújo Miguel, Macedo Luís, Castro José Miguel, Delgado Raimundo</i></p>	<b>Room 2</b>
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## DAY 3 - FRIDAY, JUNE 14

<b>Fri 14:30 – 16:30</b>	<p><b>COMPDYN RS 13: NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - II</b>  <b>Chair: M. Nielsen</b></p> <p><b>C 1637 KEYNOTE:</b> RIGID BODY TIME INTEGRATION BY CONVEXED BASE VECTORS WITH IMPLICIT CONSTRAINTS  <i>Krenk Steen, Nielsen Martin</i></p> <p><b>C 1592</b> A NEW COROTATIONAL ELEMENT FOR NONLINEAR DYNAMIC ANALYSIS OF 3D BEAMS  <i>le Thanh-Nam, Jean-Marc Battini, Hjjaj Mohammed</i></p> <p><b>C 1638</b> SHAKING OF REINFORCED CONCRETE STRUCTURES INDUCED BY A TRANSIENT DYNAMIC LOAD  <i>Rouzaud Christophe, Gatuingt Fabrice, Dorival Olivier, Hervé Guillaume</i></p> <p><b>C 1658</b> TRANSIENT RESPONSE OF FUNCTIONALLY GRADED BEAMS UNDER ARBITRARY DYNAMIC LOADING  <i>Villamil Pedro D., Zhang Chuanzeng, Chen Weiqiu</i></p> <p><b>C 1664</b> FINITE ELEMENT FORMULATION FOR AN ARCH STRUCTURE FORMED BY USING BUILT-UP BEAMS ELEMENT  <i>Nouchi Eiji, Kurata Mitsuharu, Gan Buntara Sthenly</i></p> <p><b>C 1554</b> A NUMERICAL SCHEME FOR TIME-DOMAIN FE ANALYSIS OF VISCOELASTIC STRUCTURES WITH FRACTIONAL DERIVATIVE CONSTITUTIVE EQUATIONS  <i>Deü Jean-François, Matignon Denis</i></p>	<b>Room 3</b>
<b>Fri 14:30 – 16:30</b>	<p><b>COMPDYN RS 17: REINFORCED CONCRETE STRUCTURES - I</b>  <b>Chair: C. Mitropoulou</b></p> <p><b>C 1459</b> RAPID EVALUATION OF NON-DUCTILE MULTISTORY RC FRAME BUILDINGS  <i>Thermou Georgia, Palaioxorinou Anastasia</i></p> <p><b>C 1073</b> LOCAL AND NON LOCAL APPROACHES FOR SIMULATING CFR PREINFORCED CONCRETE SHEAR WALLS UNDER MONOTONIC LOADS  <i>le Nguyen Khuong, Brun Michael, Limam Ali, Ferrier Emmanuel, Michel L.</i></p> <p><b>C 1194</b> AN INNOVATIVE PROPOSAL FOR THE IMPROVEMENT OF DURABILITY OF SLABS ON SOIL  <i>Bantias Alexandros, Tegos Ioannis, Chrysanidis Theodoros, Athanatopoulou Asimina</i></p>	<b>Room 4</b>



## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1224</b> NON-LINEAR SEISMIC ANALYSIS OF RC FRAMED BUILDING DESIGNED ACCORDING TO EC-8 <i>Nikolić Željana, Nikolić Mijo</i></p> <p><b>C 1237</b> ASSESSMENT OF THE RELIABILITY OF STRUCTURAL CONCRETES DURING EXECUTION PHASES <i>Porco Francesco, Uva Giuseppina</i></p> <p><b>COMPdyn RS 16: PERFORMANCE-BASED ENGINEERING - II</b></p> <p><b>C 1681</b> NUMERICAL CALIBRATION OF DAMAGE INDICES <i>Mitropoulou Chara, Lagaros Nikos, Papadrakakis Manolis</i></p> <p><b>C 1538</b> FRAGILITY CURVES FOR RISK-TARGETED SEISMIC HAZARD MAPS <i>Ulrich Thomas, Negulescu Caterina, Douglas John</i></p>	
Fri 14:30 – 16:30	<p><b>COMPdyn MS 24: ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - II</b> <i>Minisymposium Organizers: D. Givoli, S. Geza</i> <i>Chair: D. Givoli</i></p> <p><b>C 1192</b> NUMERICAL SIMULATION OF ELASTIC MICRO-PERFORATED PLATES INCLUDING VISCOUS AND THERMAL EFFECTS <i>Bermúdez Alfredo, Ferrín José Luis, Prieto Andrés</i></p> <p><b>C 1171</b> QUASI-OPTIMAL DOMAIN DECOMPOSITION METHODS FOR WAVE PROBLEMS <i>Antoine Xavier, Boubendir Yassine, Geuzaine Christophe, Thierry Bertrand</i></p> <p><b>C 1355</b> STABILIZED HYBRID MIXED FINITE ELEMENT METHODS FOR TIME-HARMONIC WAVES <i>Loula Abimael</i></p> <p><b>C 1410</b> CONTACT-IMPACT TREATMENT IN EXPLICIT TRANSIENT DYNAMICS USING ISOGEOMETRIC ANALYSIS WITH NURBS <i>Plešek Jiří, Kopačka Ján, Gabriel Dušan, Kolman Radek</i></p> <p><b>C 1532</b> NON-SPURIOUS OSCILLATIONS TIME INTEGRATION METHOD IN FINITE ELEMENT ANALYSIS OF NON-LINEAR WAVE PROPAGATION OF STRESS DISCONTINUITIES <i>Kolman Radek, Cho Sang Soon, Park K. C.</i></p> <p><b>C 1729</b> AN INVERSE SOURCE PROBLEM FOR FOCUSING WAVE ENERGY TO TARGETED SUBTERRANEAN FORMATIONS <i>Karve Pranav, Jeong Chanseok, Kallivokas Loukas</i></p>	Room 5

## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1210</b> FAST MULTIPOLE ACCELERATED BOUNDARY ELEMENT METHOD FOR PROBLEMS IN AN ELASTIC HALF-SPACE <i>Chaillat Stéphanie, Bonnet Marc</i></p>	
Fri 14:30 – 16:30	<p><b>COMPdyn MS 38: HUMAN INDUCED VIBRATIONS - I</b> <b>Minisymposium Organizers: G. de Roeck, P. van den Broeck, V. Racic</b> <b>Chair: G. de Roeck</b></p> <p><b>C 1028 KEYNOTE:</b> CHARACTERISATION OF WALKING LOADS FROM INERTIAL MOTION TRACKING <i>van Nimmen Katrien, van den Broeck Peter, Lombaert Geert, de Roeck Guido</i></p> <p><b>C 1129</b> ANALYTICAL AND NUMERICAL ESTIMATE OF FOOTBRIDGES' MAXIMUM DYNAMIC RESPONSE TO UNRESTRICTED PEDESTRIAN TRAFFIC <i>Tubino Federica, Piccardo Giuseppe</i></p> <p><b>C 1132</b> AN OPTICALLY BASED ASSESSMENT OF PEDESTRIAN BALANCE BEHAVIOUR WHILE WALKING ON A Laterally OSCILLATING TREADMILL <i>Carroll Sean, Owen John, Hussein Mohammed</i></p> <p><b>C 1175</b> HUMAN INDUCED VIBRATIONS IN A PEDESTRIAN TIMBER BRIDGE <i>Casciati Sara, Faravelli Lucia, Bortoluzzi Daniele</i></p> <p><b>C 1180</b> DYNAMIC LOADING FACTORS OF INDIVIDUAL JOGGING FORCES <i>Racic Vitomir, Brownjohn James, Pavic Aleksandar</i></p>	Room 6
Fri 14:30 – 16:30	<p><b>COMPdyn MS 21: SEISMIC BEHAVIOUR AND RETROFITTING OF MONUMENTS AND HISTORICAL BUILDINGS - II</b> <b>Minisymposium Organizer: I. Psycharis</b> <b>Chair: I. Psycharis</b></p> <p><b>C 1442 KEYNOTE:</b> SEISMIC RELIABILITY ASSESSMENT OF CLASSICAL COLUMNS SUBJECTED TO NEAR SOURCE GROUND MOTIONS <i>Psycharis Ioannis, Fragiadakis Michalis, Stefanou Ioannis</i></p> <p><b>C 1605</b> EARTHQUAKE BEHAVIOR OF HISTORICAL MINARETS IN ISTANBUL <i>Çakti Eser, Oliveira Carlos, Lemos Jose V., Saygili Özden, Görk Serkan, Zengin Esra</i></p> <p><b>C 1581</b> PERFORMANCE-BASED ASSESSMENT OF THE ARSENAL DE MILLY OF THE MEDIEVAL CITY OF RHODES <i>Cattari Serena, Karatzetzou Anna, Degli Abbatì S., Gkoktsi K., Pitilakis Dimitris, Negulescu Caterina</i></p> <p><b>C 1232</b> SEISMIC PERFORMANCE OF ANCIENT MASONRY BUILDINGS: A SENSITIVITY ANALYSIS <i>Mendes Nuno, B. Lourenço Paulo</i></p>	Room 7

### DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1388</b> POST-EARTHQUAKE ASSESSMENT OF A MASONRY TOWER BY ON - SITE INSPECTION AND OPERATIONAL MODAL TESTING <i>Saisi Antonella, Gentile Carmelo, Cantini Lorenzo</i></p>	
Fri 14:30 – 16:30	<p><b>COMPDYN RS 3: COMPUTATIONAL SEISMIC STRUCTURAL ANALYSIS - III</b> <b>Chair: V. Plevris</b></p> <p><b>C 1529</b> A COMPARATIVE STUDY BETWEEN ACCELERATION AND ENERGY-BASED SEISMIC DEMAND SPECTRA COMPUTED BY AN EXTENSIVE COMPUTER ALGORITHM ON A GRID COMPUTER <i>Dindar Ahmet Anil, Yalcin Cem, Yüksel Ercan, Ozkaynak Hasan, Buyukozturk Oral</i></p> <p><b>C 1578</b> NUMERICAL INVESTIGATION ON THE COLLAPSE OF THE CTV BUILDING CAUSED BY THE 2011 NEW ZEALAND EARTHQUAKE <i>Isobe Daigoro, Ido Yukari</i></p> <p><b>C 1599</b> NON-LINEAR DYNAMICS OF ELECTRICAL EQUIPMENT CABLES <i>Oliveto Nicholas, Sivaselvan Mettupalayam</i></p> <p><b>C 1685</b> DISCRETE IMPEDANCE MATRIX FOR FLEXIBLE SURFACE FOUNDATIONS <i>Maravas Andreas, Mylonakis George, Karabalis Dimitris</i></p> <p><b>C 1705</b> ENVELOPE PRINCIPLE IN MULTI-MODE PUSHOVER PROCEDURE FOR RC BUILDINGS <i>Mihanović Ante, Balić Ivan, Trogrlić Boris</i></p>	Room 8
Fri 14:30 – 16:30	<p><b>SEECCM MS 10: SOME INTERACTION PROBLEMS IN COMPUTATIONAL MECHANICS - II</b> <b>Minisymposium Organizers: U. Gulcat</b> <b>Chair: U. Gulcat</b></p> <p><b>S 2070 KEYNOTE:</b> UNSTEADY ATMOSPHERIC TURBULENT FLOW SOLUTIONS COUPLED WITH A MESOSCALE WEATHER PREDICTION MODEL <i>Lelebici Engin, Ahmet Gökhan, Tuncer İsmail Hakkı</i></p> <p><b>S 2094</b> REDUCED ORDER MODELLING OF HIGH-FIDELITY COMPUTATIONAL FLUID-STRUCTURE INTERACTION ANALYSIS FOR AEROELASTIC SYSTEMS <i>Acar Pınar, Nikbay Melike</i></p> <p><b>S 2097</b> DYNAMIC BEHAVIOUR OF LAMINATED PLATES SUBJECTED TO THERMOMECHANICAL LOADS <i>Turkmen Halit, Susler Sedat, Kazancı Zafer</i></p>	Room 9

## DAY 3 - FRIDAY, JUNE 14

	<p><b>SEECM RS 10: GEOMECHANICS</b></p> <p><b>S 2068</b> THE INFLUENCE OF PUMPING PARAMETERS IN FLUID-DRIVEN FRACTURES <i>Sarris Ernestos, Papanastasiou Panos</i></p>	
Fri 14:30 – 16:30	<p><b>COMPdyn MS 10: SEISMIC ANALYSIS AND DESIGN OF INDUSTRIAL FACILITIES AND PIPELINES</b> <i>Minisymposium Organizers: S. Karamanos, P. Dakoulas, V. Papadopoulos, M. Fragiadakis</i> <i>Chair: M. Fragiadakis</i></p> <p><b>C 1650</b> EXPERIMENTAL AND NUMERICAL INVESTIGATION OF PRESSURIZED PIPE FITTINGS UNDER STRONG CYCLIC LOADING CONDITIONS <i>Varelis George, Karamanos Spyros, Diamanti Kalliopi, Papatheoharis Theoharis, Perdikaris Philip, Ferino Jan, Lucci Antonio, Demofonti Giuseppe</i></p> <p><b>C 1721</b> A STOCHASTIC APPROACH FOR ASSESSING IMPERFECTION SENSITIVITY OF LIQUID STORAGE TANKS <i>Vathi Maria, Soimoiris Georgios, Karamanos Spyros, Papadopoulos Vissarion</i></p> <p><b>C 1682</b> MODELLING OF UPLIFTING MECHANISM IN UNANCHORED LIQUID STORAGE TANKS SUBJECTED TO SEISMIC LOADING <i>Vathi Maria, Karamanos Spyros</i></p> <p><b>C 1700</b> RELIABILITY ASSESSMENT OF PIPE NETWORKS UNDER SEISMIC LOADS <i>Fragiadakis Michalis, Christodoulou Symeon</i></p>	Room 10
Fri 14:30 – 16:30	<p><b>COMPdyn RS 8: GEOTECHNICAL EARTHQUAKE ENGINEERING - I</b> <i>Chair: B. Manna</i></p> <p><b>C 1027</b> STABILITY OF EARTH RETENTION SYSTEM IN DRY COHESIONLESS SOIL UNDER STATIC AND SEISMIC CONDITION <i>Chowdhury Subha Sankar, Deb Kousik, Sengupta Anirudhha</i></p> <p><b>C 1159</b> STABILITY ANALYSIS OF STEEP NAILED SLOPES IN SEISMIC CONDITIONS: NUMERICAL APPROACH <i>Sahoo S, Manna B, Sharma K. G</i></p> <p><b>C 1185</b> STABILITY ANALYSIS OF A ROCK MASS IN SEISMIC CONDITIONS: CASE STUDY IN LEBANON <i>Abdallah Mirvat, Shahrour Isam, Hage Chehade Fadi</i></p>	Room 11

## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1314</b> STATISTICAL EVALUATION OF THE SEISMIC SERVICE ABILITY OF A BULLET TRAIN ALONG THE DEAD SEA FAULT <i>Uchida Shun, Klar Assaf</i></p> <p><b>C 1500</b> FUNDAMENTAL STUDY ON EVALUATING ROCK SLOPE STABILITY BY VIBRATION MEASUREMENTS USING REMOTE VIBRATION MEASURING SYSTEM <i>Minoura Shintaro, Uehan Fumiaki, Saito Hideki</i></p>	
<b>Fri 14:30 – 16:30</b>	<p><b>SEECM RS 9: FLUID -STRUCTURE INTERACTION</b> <i>Chair: G. Lygidakis</i></p> <p><b>S 2024</b> EXPLICIT AND IMPLICIT COUPLING OF FLOW AND DEFORMATION IN NATURALLY FRACTURED RESERVOIRS SIMULATION <i>Salimzadeh Saeed, Khalili Nasser</i></p> <p><b>S 2043</b> IMPROVING THE ACCURACY OF A FINITE-VOLUME METHOD FOR COMPUTING RADIATIVE HEAT TRANSFER IN THREE-DIMENSIONAL UNSTRUCTURED MESHES <i>Lygidakis Georgios, Nikolos Ioannis</i></p> <p><b>SEECM RS 7: FEM: MODELLING AND SIMULATION</b></p> <p><b>S 2019</b> ADAPTIVE REGULARIZATION, LINEARIZATION, AND DISCRETIZATION AND A POSTERIORI ERROR CONTROL FOR THE TWO-PHASE STEFAN PROBLEM <i>Yousef Soleiman, di Pietro Daniele, Vohralik Martin</i></p> <p><b>S 2045</b> MODELING OF INELASTIC MATERIALS BY MULTI-SCALE METHOD WITH LIMITED NUMBER OF RVE <i>Serafin Marta, Cecot Witold</i></p> <p><b>S 2064</b> COMPUTATIONAL SIMULATION OF CROSS ROLL STRAIGHTENING <i>Petruska Jindrich, Navrat Tomas</i></p> <p><b>S 2144</b> GENERATING EMBEDDED REBAR ELEMENTS FOR LARGE-SCALE RC MODELS <i>Markou George, Papadrakakis Manolis</i></p>	<b>Room 12</b>
<b>Fri 16:30 – 17:00</b>	<b>Coffee Break</b>	

## DAY 3 - FRIDAY, JUNE 14

Fri 17:00 – 19:00	TECHNICAL SESSIONS	
Fri 17:00 – 19:00	<p><b>SEECM MS 5: MESHFREE AND PARTICLE METHODS FOR SEVERE LOADINGS - II</b>  <i>Minisymposium Organizers: K. Danielson, J-S Chen, S-W Chi, D. Littlefield, J. Roth</i>  <b>Chair: D. Littlefield</b></p> <p><b>S 2124 KEYNOTE: FURTHER DEVELOPMENTS IN A LOAD HISTORY GENERATOR TO COUPLE EPIC AND LS-DYNA</b>  <i>Littlefield David, Walls Kenneth, Danielson Kent</i></p> <p><b>S 2073 A LEVEL SET ENHANCED KERNEL CONTACT ALGORITHM FOR FRAGMENT-IMPACT PROBLEMS</b>  <i>Chi Sheng-Wei, Lee Chung-Hao, Lin Shih-Po, Chen Jiun-Shyan</i></p> <p><b>COMPdyn MS 40: STRUCTURAL DYNAMICS AND EARTHQUAKE ENGINEERING OF ROCKING STRUCTURES - III</b>  <i>Minisymposium Organizers: B. Stojadinovic, N. Makris</i></p> <p><b>C 1238 SHAKING TABLE TESTS ON UNREINFORCED LOAD-BEARING MASONRY WALLS – COMPARISON WITH SIMPLE ROCKING MODELS.</b>  <i>Mordant Christophe, Dietz Matthew, Degée Hervé</i></p> <p><b>C 1213 FINITE ELEMENT MODELING OF “ROCKING WALLS”</b>  <i>Belleri Andrea, Torquati Mauro, Riva Paolo</i></p> <p><b>C 1464 SEISMIC PERFORMANCE OF PRE-STRESSED SHEAR WALLS WITH BOTTOM HORIZONTAL SLITS AND BUCKLING RESTRAINED REINFORCEMENT</b>  <i>Xiangliang Dang, Ying Zhou, Xilin Lu</i></p>	Room 1
Fri 17:00 – 19:00	<p><b>COMPdyn RS 15: PASSIVE ACTIVE AND SEMI-ACTIVE DEVICES</b>  <b>Chair: R. Barros</b></p> <p><b>C 1712 EFFECTIVENESS AND ROBUSTNESS OF A SEMI-ACTIVE CONTROL STRATEGY BASED ON SEISMIC EARLY WARNING INFORMATION</b>  <i>Maddaloni Giuseppe, Caterino Nicola</i></p> <p><b>C 1713 REGIONAL-BASED CONTROL ALGORITHMS USING EARLY WARNING INFORMATION FOR SEISMIC PROTECTION OF A HIGHWAY BRIDGE</b>  <i>Maddaloni Giuseppe, Caterino Nicola, Nestovito Gianluca, Occhiuzzi Antonio</i></p> <p><b>C 1714 SHAKING TABLE TESTS TO COMPARE SEMI-ACTIVE CONTROL ALGORITHMS FOR VARIABLE DAMPERS</b>  <i>Caterino Nicola, Spizzuoco Maria-Cristina, Occhiuzzi Antonio</i></p> <p><b>C 1716 RESPONSE TIME OF MR DAMPERS FOR SEISMIC SEMIACTIVE CONTROL: EXPERIMENTAL MEASURES AND POSSIBLE PREDICTION</b>  <i>Caterino Nicola, Spizzuoco Maria-Cristina</i></p>	Room 2

## DAY 3 - FRIDAY, JUNE 14

	<p><b>C 1590</b> EXPERIMENTAL AND NUMERICAL ANALYSIS OF MR DAMPERS <i>Braz-César Manuel, Barros Rui</i></p> <p><b>C 1591</b> VIBRATION CONTROL OF A SHEAR FRAME EQUIPPED WITH A MR DAMPER <i>Braz-César Manuel, Barros Rui</i></p>	
Fri 17:00 – 19:00	<p><b>COMPDYN RS 10: IDENTIFICATION METHODS IN STRUCTURAL DYNAMICS</b> <i>Chair: C. Schmied</i></p> <p><b>C 1082</b> SYSTEM IDENTIFICATION OF A 13-STORY REINFORCED CONCRETE BUILDING THROUGH AMBIENT AND FORCED VIBRATION <i>Beskhyroun Sherif, Wotherspoon Liam, Ma Quincy</i></p> <p><b>C 1418</b> DYNAMIC IDENTIFICATION AND EVALUATION OF THE SEISMIC SAFETY OF A MASONRY BELL TOWER IN THE SOUTH OF ITALY <i>Colapietro Domenico, Fiore Alessandra, Netti Adriana, Fatiguso Fabio, Marano Giuseppe, de Fino Mariella, Cascella Davide, Ancona Antonio</i></p> <p><b>C 1497</b> IDENTIFICATION OF REINFORCED CONCRETE BEAM PARAMETERS USING INVERSE MODELING TECHNIQUE AND MEASURED DYNAMIC RESPONSES FOR STRUCTURAL HEALTH MONITORING <i>Waeytens Julien, le Corvec Véronique, Lévèque Philippe, Siegert Dominique, Bourquin Frédéric</i></p> <p><b>C 1543</b> IDENTIFYING THE DAMPING CONTRIBUTION OF BUILDING COMPONENTS BASED ON MEASURED TOP VIBRATION <i>van den Berg Ronald, Steenbergen Raphaël</i></p>	Room 3
	<p><b>COMPDYN RS 13: NUMERICAL METHODS FOR LINEAR AND NONLINEAR DYNAMICS - III</b></p> <p><b>C 1513</b> FREE VIBRATIONS OF NON-ISOTROPIC THIN PLATES WITH CUTOUTS <i>Lebedev Alexandr, Smirnov Andrei</i></p> <p><b>C 1456</b> FREE VIBRATIONS OF PERFORATED THIN PLATES <i>Smirnov Andrei, Lebedev Alexandr</i></p> <p><b>C 1496</b> ASPECTS OF NUMERICAL EFFICIENCY FOR ENHANCED ASSUMED STRAIN FINITE ELEMENTS IN EXPLICIT TIME INTEGRATION <i>Schmied Christoph, Mattern Steffen, Schweizerhof Karl</i></p>	

## DAY 3 - FRIDAY, JUNE 14

<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPDYN RS 17: REINFORCED CONCRETE STRUCTURES - II</b>  <b>Chair: Y. Rashed</b></p> <p><b>C 1646</b> STRUCTURAL ANALYSIS OF MULTISTORY BUILDING USING COUPLED BEM-STIFFNESS MATRIX  <i>Mohareb Ramez, Rashed Youssef, Wagdy Mina, Mobasher Mostafa</i></p> <p><b>C 1320</b> COMPARATIVE EVALUATION OF DIFFERENT DAMAGE MEASURES FOR R/C BUILDINGS CONSIDERING VARIABLE INCIDENT ANGLES  <i>Morfidis Konstantinos, Kostinakis Konstantinos, Karakostas Christos</i></p> <p><b>C 1326</b> IMPACT OF SEISMIC CODES ON BUILDING PERFORMANCE IN THE CARIBBEAN  <i>Redmond Laura, Stroecker Rebecca, DesRoches Reginald</i></p> <p><b>C 1452</b> EFFECTS OF TORSION ON THE BEHAVIOUR OF NON-STRUCTURAL COMPONENTS MOUNTED ON IRREGULAR REINFORCED CONCRETE MULTI-STOREY BUILDINGS  <i>Aldeka Ayad, Chan AHC, Dirar S.</i></p> <p><b>C 1659</b> NONLINEAR SEISMIC ANALYSIS OF INFILLED RC FRAMES WITH AN EQUIVALENT STRUT MODEL  <i>Landi Luca, Tardini Annalisa, Diotallevi Pier Paolo</i></p> <p><b>S 2159</b> DESIGN OF RC SECTIONS IN THE ULTIMATE LIMIT STATE UNDER BENDING AND AXIAL FORCE ACCORDING TO EC2  <i>Plevris Vagelis, Papazafeiropoulos George, Papadrakakis Manolis</i></p>	<p><b>Room 4</b></p>
<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPDYN MS 24: ADVANCES IN MODELING OF WAVE PROPAGATION AND APPLICATIONS - III</b>  <b>Minisymposium Organizers: D. Givoli, S. Geza</b>  <b>Chair: D. Givoli</b></p> <p><b>C 1109</b> ADVANCES IN HIGH-ORDER ABSORBING BOUNDARIES FOR ELASTODYNAMICS  <i>Givoli Dan, Baffet Daniel, Rabinovich Daniel, Hagstrom Thomas, Bielak Jacobo</i></p> <p><b>C 1227</b> A POLY-GRID SPECTRAL ELEMENT APPROACH FOR WAVE MODELING IN HETEROGENEOUS ELASTIC SOLIDS  <i>Seriani Géza, Su Chang</i></p> <p><b>C 1125</b> LOW FREQUENCY ACOUSTIC PROPAGATION IN SHALLOW WATER OVER AN ELASTIC BOTTOM  <i>Taroudakis Michael</i></p>	<p><b>Room 5</b></p>



**DAY 3 - FRIDAY, JUNE 14**

	<p><b>C 1172</b> A REGULARIZED NEWTON METHOD FOR THE SOLUTION OF AN INVERSE OBSTACLE SCATTERING PROBLEM IN FLUID-SOLID INTERACTION <i>Barucq Hélène, Djellouli Rabia, Estecahandy Elodie</i></p> <p><b>C 1188</b> MESH FREE FRONTIER-BASED FORMULATION (MF3) FOR HIGH FREQUENCY HELMHOLTZ PROBLEMS <i>Amara Mohamed, Diaz Julien, Djellouli Rabia</i></p> <p><b>C 1215</b> A METHOD FOR WAVE PROPAGATION ANALYSIS VIA COMPONENTWISE PARTITION OF STRESS COMPONENTS: EXTENSION TO TRIANGULAR AND TETRAHEDRAL ELEMENTS <i>Cho Sang Soon, Park K. C., Huh H.</i></p>	
<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPdyn MS 38: HUMAN INDUCED VIBRATIONS - II</b> <i>Minisymposium Organizers: G. de Roeck, P. van den Broeck, V. Racic</i> <i>Chair: G. de Roeck</i></p> <p><b>C 1352</b> DYNAMIC ANALYSIS OF STEEL-CONCRETE COMPOSITE TUBULAR FOOTBRIDGES SUBMITTED TO HUMAN WALKING <i>Debona Gilvan Lunz, Santos da Silva José Guilherme, Sieira Ana Cristina Castro Fontenla</i></p> <p><b>C 1389</b> MEASUREMENT OF HUMAN-INDUCED VIBRATIONS ON A LIVELY FOOTBRIDGE BY MICROWAVE REMOTE SENSING <i>Gentile Carmelo, Andisheh Kaveh</i></p> <p><b>C 1390</b> QUANTIFICATION OF THE STRUCTURAL RESPONSE OF A STAIRCASE DAMPED BY THE PRESENCE OF PEOPLE: NUMERICAL MODEL AND EXPERIMENTAL TESTS <i>Cappellini Anna, Manzoni Stefano, Vanali Marcello</i></p> <p><b>COMPdyn RS 1: ACTIVE-PASSIVE CONTROL</b></p> <p><b>C 1549</b> OPTIMAL CONTROL DESIGN BY ADJOINT-BASED OPTIMIZATION FOR ACTIVE MASS DAMPER WITH DRY FRICTION <i>Guida Domenico, Nilvetti Fabio, Pappalardo Carmine Maria</i></p>	<p><b>Room 6</b></p>

## DAY 3 - FRIDAY, JUNE 14

<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPDYN RS 24: SEISMIC SAFETY ASSESSMENT OF STRUCTURES</b>  <b>Chair: A. Penna</b></p> <p><b>C 1055</b> QUANTIFICATION OF RESIDUAL AXIAL CAPACITY OF BEAM-COLUMN JOINTS IN EXISTING CONCRETE BUILDINGS UNDER SEISMIC LOAD REVERSALS  <i>Hassan Wael, Moehle Jack</i></p> <p><b>C 1065</b> ROCKING AND SLIDING OF UNANCHORED BODIES SUBJECTED TO SEISMIC LOAD ACCORDING TO CONVENTIONAL AND NUCLEAR RULES  <i>Schau Henry, Johannes Micheal</i></p> <p><b>C 1234</b> EFFECTS OF “REINFORCED” INFILLED FRAMES ON EXISTING RC BUILDINGS  <i>Fiore Andrea, Uva Giuseppina</i></p> <p><b>C 1477</b> SEISMIC FRAGILITY ANALYSIS OF A NUCLEAR PRIMARY CONTAINMENT STRUCTURE  <i>Lala Sayantani, Ghosh Siddhartha, Pujari Nikil</i></p> <p><b>COMPDYN RS 12: MASONRY STRUCTURES</b></p> <p><b>C 1331</b> A MACRO-ELEMENT MODEL FOR THE NONLINEAR ANALYSIS OF MASONRY MEMBERS INCLUDING SECOND ORDER EFFECTS  <i>Penna Andrea, Galasco Alessandro</i></p> <p><b>C 1647</b> A 2-DOF MODEL FOR THE DYNAMIC ANALYSIS OF UNREINFORCED MASONRY WALLS IN OUT-OF-PLANE BENDING  <i>Gabellieri Rocco, Landi Luca, Diotallevi Pier Paolo</i></p>	<p><b>Room 7</b></p>
<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPDYN RS 27: SOFT COMPUTING APPLICATIONS</b>  <b>Chair: N. Lagaros</b></p> <p><b>C 1231</b> A SIMPLIFIED ALGORITHM FOR EVALUATING THE SEISMIC RETURN PERIOD OF STRUCTURAL CAPACITY  <i>Raffaele Domenico, Fiore Andrea</i></p> <p><b>C 1530</b> FINITE ELEMENT MODEL UPDATING OF A REAL STRUCTURE BASED ON A MULTI-OBJECTIVE OPTIMIZATION APPROACH  <i>Morga Mariantonietta</i></p> <p><b>S 2158</b> NEURAL NETWORK APPROXIMATION OF THE MASONRY FAILURE CRITERION UNDER BIAXIAL COMPRESSIVE STRESS  <i>Asteris Panagiotis, Plevris Vagelis</i></p>	<p><b>Room 8</b></p>

**DAY 3 - FRIDAY, JUNE 14**

	<p><b>COMPdyn RS 32: STRUCTURAL HEALTH MONITORING</b></p> <p><b>C 1216</b> COMPARATIVE ANALYSIS OF ROBUST KALMAN FILTERING TECHNIQUES FOR STRUCTURAL HEALTH MONITORING PURPOSES <i>Nasr Dana, Saad George</i></p> <p><b>C 1698</b> GRAPHICAL MODAL ANALYSIS AND EARTHQUAKE STATICS OF LINEAR ONE-WAY ASYMMETRIC SINGLE-STORY STRUCTURE <i>Faggella Marco</i></p>	
<p><b>Fri 17:00 – 19:00</b></p>	<p><b>COMPdyn MS 28: PERIODICITY EFFECTS AND PERIODICITY-BASED METHODS IN VIBRO-ACOUSTICS AND STRUCTURAL DYNAMICS - III</b> <i>Minisymposium Organizers: S. Sorokin</i> <i>Chair: S. Sorokin</i></p> <p><b>C 1490 KEYNOTE:</b> ON OPTIMUM DESIGN AND PERIODICITY OF BAND-GAP STRUCTURES <i>Olhoff Niels, Niu Bin, Cheng Gengdong</i></p> <p><b>C 1640</b> ON WAVE PROPAGATION IN MATERIALS WITH PERIODIC HETEROGENEITIES IN SPACE AND TIME <i>Weekes Suzanne</i></p> <p><b>C 1690</b> THE LOCATION OF PASS AND STOP BANDS OF AN INFINITE PERIODIC STRUCTURE VERSUS THE EIGENFREQUENCIES OF ITS FINITE SEGMENT CONSISTING OF SEVERAL “PERIODICITY CELLS” <i>Filippenko Georgy</i></p> <p><b>C 1445</b> INFLUENCE OF STRUCTURAL PERIODICITY ON VIBRATION TRANSMISSION IN A MULTI-STOREY WOODEN BUILDING <i>Andersen Lars Vabbersgaard</i></p> <p><b>C 1411</b> INFINITE PERIODIC STRUCTURE OF LIGHTWEIGHT ELEMENTS: REPRESENTATION OF WAVE PROPAGATION <i>Domadiya Parthkumar, Andersen Lars Vabbersgaard, Sorokin Sergey</i></p>	<p><b>Room 9</b></p>

## DAY 3 - FRIDAY, JUNE 14

<b>Fri 17:00 – 19:00</b>	<p><b>COMPdyn MS 18 : SEISMIC ASSESSMENT OF HERITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION - II</b>  <b>Minisymposium Organizer: S. Pantazopoulou</b>  <b>Chair: C. Spyrakos</b></p> <p><b>C 1597</b> RECORDING HISTORIC MASONRY BUILDINGS USING PHOTOGRAMMETRY - TWO CASE STUDIES  <i>Chalioris Constantin, Tsioukas Vassilios, Favvata Maria, Karayannis Chris</i></p> <p><b>C 1598</b> STRUCTURAL UPGRADING OF A 3-STOREY HERITAGE STRUCTURE OF 1925 IN THESSALONIKI  <i>Karayannis Chris, Chalioris Constantin, Favvata Maria</i></p> <p><b>COMPdyn MS 42: RELIGIOUS MONUMENTS: SEISMIC BEHAVIOR AND RETROFIT</b>  <b>Minisymposium Organizers: C. Spyrakos, P. Asteris</b></p> <p><b>C 1702 KEYNOTE:</b> SEISMIC EVALUATION OF THE HISTORIC CHURCH OF ST.NICHOLAS IN PIRAEUS BEFORE AND AFTER INTERVENTIONS  <i>Spyrakos Constantine, Francioso Alessio, Kiriakopoulos Panagiotis, Papoutsellis Stavros</i></p> <p><b>C 1584</b> SEISMIC ANALYSIS OF VAULTED MASONRY STRUCTURES THROUGH THE FINITE ELEMENT MODEL "ASHLAR-JOINT"  <i>Pugi Francesco</i></p> <p><b>COMPdyn RS 20: SEISMIC ASSESSMENT OF HERITAGE STRUCTURES AND MONUMENTS THROUGH SIMULATION</b></p> <p><b>C 1149</b> DYNAMICAL CHARACTERIZATION OF TYPICAL MEXICAN COLONIAL CHURCHES  <i>Peña Fernando, Manzano Julio, Robles Laura</i></p>	<b>Room 10</b>
<b>Fri 17:00 – 19:00</b>	<p><b>COMPdyn RS 8: GEOTECHNICAL EARTHQUAKE ENGINEERING - II</b>  <b>Chair: M. Fragiadakis</b></p> <p><b>C 1544</b> EFFECT OF COUPLING EXCESS PORE PRESSURE AND SOIL DEFORMATION ON THE NONLINEAR RESPONSE  <i>Montoya-Noguera Silvana, Lopez-Caballero Fernando</i></p> <p><b>C 1594</b> ROLE OF SLIDING BLOCK ROTATION ON EARTHQUAKE-INDUCED PERMANENT DISPLACEMENT OF EARTH SLOPES  <i>Lashgari Ali, Jafarian Yaser</i></p>	<b>Room 11</b>

**DAY 3 - FRIDAY, JUNE 14**

	<p><b>C 1608</b> FRAGILITY CURVES FOR ASSESSING THE SEISMIC VULNERABILITY OF GRAVITY QUAY WALLS <i>Miraei M., Jafarian Yaser</i></p> <p><b>C 1168</b> GENERATION OF NEAR-FAULT RESPONSE SPECTRUM OF A LARGE DAM, USING THE SPECTRAL-ELEMENT METHOD AND A HYBRID SIMULATION TECHNIQUE <i>Zafarani Hamid</i></p>	
<p><b>Fri 17:00 – 19:00</b></p>	<p><b>SEECCM RS 12: MULTIPHYSICS-MULTISCALE PROBLEMS AND COMPUTATION</b> <i>Chair: G. Chatzigeorgiou</i></p> <p><b>S 2020</b> ON BOUNDARY CONDITIONS IN MULTISCALE SECOND-ORDER COMPUTATIONAL HOMOGENIZATION SCHEME <i>Lesičar Tomislav, Tonković Zdenko, Sorić Jurica</i></p> <p><b>S 2049</b> COMPUTER SIMULATION OF AFTER BLAST FIRE IN OPEN CAR PARK <i>Malendowski Michal, Glema Adam</i></p> <p><b>SEECCM RS 3: COMPUTATIONAL ENVIRONMENTAL SCIENCE - III</b></p> <p><b>S 2099</b> SIMULATING LANDFILL AERATION SYSTEMS USING COMPUTATIONAL FLUID DYNAMICS TECHNIQUES <i>Fytanidis Dimitrios, Voudrias Evangelos</i></p> <p><b>SEECCM RS 6: EXTENDED AND GENERALIZED FINITE ELEMENT METHODS</b></p> <p><b>S 2037</b> A HYBRID FINITE VOLUME EXTENSION OF THE CROUZEIX-RAVIART SPACE TO GENERAL MESHES: APPLICATIONS TO QUASI-INCOMPRESSIBLE LINEAR ELASTICITY AND STOKES FLOWS WITH LARGE IRROTATIONAL BODY FORCES <i>di Pietro Daniele, Lemaire Simon</i></p> <p><b>SEECCM RS 5: COMPUTATIONAL SOLID AND STRUCTURAL MECHANICS - II</b></p> <p><b>S 2022</b> FAST DETECTION OF CHAOTIC OR REGULAR BEHAVIOR OF DOUBLE PENDULUM SYSTEM: APPLICATION OF THE FAST NORM VECTOR INDICATOR METHOD <i>Dumitru Deleanu</i></p> <p><b>S 2040</b> HOMOGENIZATION OF COMPOSITE MATERIALS WITH ENERGETIC INTERFACES <i>Chatzigeorgiou George, Javili Ali, Steinmann Paul</i></p>	<p><b>Room 12</b></p>

# AUTHORS INDEX

## A

Aaleti S. ....	69
Abate M. ....	57
Abdallah M. ....	75
Abdel Raheem S. ....	37
Abramyan A. ....	59
Acar P. ....	74
Achillopoulou D. ....	39
Adam C. ....	28
Adamakos K. ....	47
Addari D. ....	58
Adhikari S. ....	56
Aglietti G. ....	49, 58
Aguirre M. ....	63
Ahmadi O. ....	29
Ahmet G. ....	74
Akbas T. ....	69
Aldeka A. ....	79
Alevras P. ....	32
Alex H. ....	31
Alexandri V. ....	52
Alexandrou A. ....	50
Ali Santoro D. ....	57
Allaire G. ....	52, 58
Amara M. ....	80
Amirzehni E. ....	48
Amit E. ....	54
Amorin E. ....	70
Anagnostopoulos S. ....	39, 45
Anastasiadis A. ....	25
Anastasopoulos I. ....	49
Anciaux G. ....	60
Ancona A. ....	78
Andersen L-V. ....	82
Andisheh K. ....	80
Antoine X. ....	72
Antonietti P-F. ....	64
Antonopoulos T. ....	39
Apostolidi E. ....	35
Araújo M. ....	70
Arcidiacono V. ....	46
Ardila-Giraldo O. ....	46
Arêde A. ....	62, 70
Argyropoulos C. ....	46
Argyroudis S. ....	25
Arquier M. ....	28
Asprone D. ....	28
Asteris P. ....	44, 81
Atakoy H. ....	27
Athanasiou E. ....	64
Athanatopoulou A. ....	71
Attarchian N. ....	48
Attarnejad R. ....	65
Audebert S. ....	34
Auersch L. ....	36
Auricchio F. ....	32, 33, 41
Avgerinou S. ....	47

Aviles J. ....	48
Ayuso de Dios B. ....	64
Azevedo Ferreira M-Á. ....	36
Aznárez J. ....	41

## B

Bachir D. ....	65
Baffet D. ....	79
Bagault C. ....	53
Baietto M-C. ....	53
Baiges J. ....	41
Bakas N. ....	44
Bal I. ....	33
Balea I. ....	52
Balić I. ....	74
Baltzopoulos G. ....	28
Bantias A. ....	71
Baranoglu B. ....	66
Barbato M. ....	31, 39
Barber J. ....	53
Barka G. ....	27
Barros R. ....	34, 78
Bartelt P. ....	36
Barucq H. ....	80
Bastos F. ....	28
Batou A. ....	34
Bauer S. ....	60
Baykasoglu C. ....	56
Beaurepaire P. ....	40
Bechtoula H. ....	64
Becker P. ....	54
Beckmann N. ....	60
Beirão da Veiga L. ....	32
Beissel S. ....	29
Belleri A. ....	77
Belsham C. ....	42
Belyaev A. ....	67
Benamer M. ....	43
Benyoucef A. ....	64
Bergami A-V. ....	62
Berke P. ....	58
Bermúdez A. ....	72
Bertevas E. ....	50
Beskhyroun S. ....	78
Beskos D. ....	37
Bevington J. ....	46
Bhattacharya S. ....	26
Bielak J. ....	79
Bird J. ....	38
Bischoff M. ....	30, 68
Blekhman I. ....	67
Bog T. ....	55
Bogdan T. ....	47
Bonet J. ....	63
Bonnet M. ....	73
Bontempi F. ....	24
Bortoluzzi D. ....	45, 73
Boschert S. ....	33

Bouazizi M-L. ....	26
Boubendir Y. ....	72
Bouchoucha F. ....	57
Bouhaddi N. ....	26
Boumediene F. ....	63
Bournas D. ....	33
Bourquin F. ....	78
Bousias S. ....	59
Bracchi S. ....	42
Braconi A. ....	40, 51
Braga F. ....	51
Brasil R. ....	37
Braz-César M. ....	78
Brezzi F. ....	61
Brischetto S. ....	56
Broggi M. ....	40
Brownjohn J. ....	73
Brun M. ....	30, 48, 71
Bucur C. ....	25
Bucur V-M. ....	25
Busarac N. ....	50
Butterworth J. ....	62
Buyukozturk O. ....	74

## C

Caccamo L. ....	58
Cadou J-M. ....	63
Caetano E. ....	27, 28
Cai X-C. ....	67
Çakti E. ....	45, 73
Caçada R. ....	36
Caleyron F. ....	24
Callerio A. ....	63
Calo V. ....	41
Calvi A. ....	58
Calvi G-M. ....	61
Calvi P. ....	63
Canor T. ....	40, 60
Cantini L. ....	74
Cappellini A. ....	80
Caprili S. ....	40, 51
Carozza S. ....	32
Carroll S. ....	73
Cartmell M. ....	58
Carydis P. ....	64
Cascella D. ....	78
Casciati F. ....	45
Casciati S. ....	45, 73
Casolo S. ....	41, 65
Castro J-M. ....	70
Caterino N. ....	25, 77
Cattari S. ....	73
Cavaleri L. ....	44
Cecot W. ....	76
Cekan M. ....	42
Celarec D. ....	44
Celebi A-T. ....	56
Cenan O. ....	35

Ceresa P. ....	61
Cespedes X. ....	28
Chae Y. ....	43
Chaillat S. ....	73
Chalioris C. ....	52, 83
Chan A. ....	79
Chancellor B. ....	69
Chandra Y. ....	61
Chapman J. ....	61
Charmpis D. ....	47
Chasioti S. ....	35
Chatzi E. ....	36, 45, 46
Chatzidaki F. ....	58
Chatzigeorgiou G. ....	84
Chatzis M. ....	69
Chen A. ....	36
Chen J-S. ....	24, 77
Chen M. ....	33
Chen W. ....	71
Cheng G. ....	82
Cheng Y. ....	28
Chevaugeon N. ....	53
Chevreuil M. ....	58
Chi S-W. ....	24, 77
Chikh B. ....	64
Chinchilla-Portillo K. ....	44
Chioccarelli E. ....	28
Chiodi R. ....	39
Chiriatti M. ....	69
Chiroiu V. ....	42
Cho S-S. ....	72, 80
Chouw N. ....	51
Chowdhury S-S. ....	75
Christodoulou S. ....	75
Christopoulos A. ....	31
Christopoulos C. ....	29, 62
Christou A. ....	26
Chronopoulos D. ....	26
Chrysanidis T. ....	71
Chrysostomou C. ....	65
Cimellaro G-P. ....	46, 69
Clouteau D. ....	41, 42
Colapietro D. ....	78
Collier N. ....	41
Combesure A. ....	24, 30
Connolly A. ....	29
Conti M. ....	33, 41
Cosenza E. ....	59
Costa A. ....	62, 70
Cottreau R. ....	50
Coulier P. ....	36, 64
Crawford J. ....	29
Cunha A. ....	58
Cunha A. ....	27, 28
Cuomo M. ....	41

## D

Dalla Corte M. ....	56
Damianou Y. ....	50
Daniel Y. ....	34
Danielson K. ....	24, 77
Davis N. ....	38

Daya E-M. ....	63
de Boer A. ....	49
De Fino M. ....	78
de Klerk D. ....	66
de Queiroz Lima R. ....	34
de Risi M-T. ....	44
de Risi R. ....	32
de Roeck G. ....	45, 73
de Sanctis L. ....	25
Deb K. ....	75
Debona G-L. ....	80
Degée H. ....	77
Degli A. ....	73
Degrande G. ....	27, 36, 41, 64
Degroote J. ....	27
DeJong M. ....	62
del Vecchio C. ....	59
Delgado G. ....	58
Delgado P. ....	70
Delgado R. ....	70
Della Corte G. ....	40
Demanet J. ....	60
Demofonti G. ....	75
Demosthenous M. ....	57
Denoël V. ....	40
Deretic-Stojanovic B. ....	63
DesRoches R. ....	79
Deü J-F. ....	71
Devall R. ....	48
Devésa G. ....	42
Dezi L. ....	39
di Laora R. ....	25
di Pietro D. ....	76, 84
di Sarno L. ....	26, 39, 59
di Trapani F. ....	44
Diamanti K. ....	75
Diaz J. ....	80
Dietz M. ....	26, 77
Dihoru L. ....	26
Dijkmans A. ....	36
Dimakogianni D. ....	47
Dimitrakopoulos E. ....	37, 62
Dimopoulos A. ....	29
Dindar A-A. ....	74
Diotallevi P. ....	79, 81
Dirar S. ....	79
Divac D. ....	50
Djellouli R. ....	80
Dolšek M. ....	24, 40, 44
Dong B. ....	43
Dorival O. ....	71
Dougka G. ....	47
Douglas J. ....	72
Dourakopoulos J. ....	37
Dritsos S. ....	35
Dudley W-N. ....	46
Duhamel D. ....	34
Duigou L. ....	63
Dumitru D. ....	84
Dunić V. ....	50
Dunn S. ....	46
Durante M-G. ....	26

## E

Ebrahimian H. ....	28
Efraimiadou S. ....	37
Eid R. ....	62
Ekblad A. ....	36
Eken A. ....	65
El Kacimi A. ....	64
Elghazouli A. ....	36
Elguedj T. ....	24
Elhowary H. ....	39
Ellenbroek M. ....	49
Elnashai A. ....	59
Erochko J. ....	29
Escallón J. ....	36
Esefeld B. ....	53
Estecahandy E. ....	80
Esteva L. ....	40
Evangelista A. ....	26

## F

Faggella M. ....	82
Fahjan Y. ....	27
Fall-Lo F. ....	34
Faravelli L. ....	45, 73
Farhat R. ....	62
Fatiguso F. ....	78
Faverjon B. ....	35
Favvata M. ....	52, 83
Felekidou O. ....	43
Feng Y. ....	43
Ferino J. ....	75
Fernández M-A. ....	40
Ferrari M. ....	38
Ferraro M. ....	33
Ferreira R. ....	52
Ferreira T. ....	70
Ferrier E. ....	71
Ferrín J-L. ....	72
Filipovic N. ....	38
Filippa A. ....	42
Filippenko G. ....	82
Filippou F. ....	63
Filippov S. ....	59
Finn L. ....	48
Fiore A. ....	63, 78, 81
Fischinger M. ....	27, 33, 35
Flamand O. ....	28
Fotiadis D. ....	38
Fotopoulou S. ....	42, 63
Fragiadakis M. ....	31, 73, 75
Francioso A. ....	83
François S. ....	36, 41, 64
Franz T. ....	38
Fukui T. ....	56
Funfschilling C. ....	34, 57
Fytanidis D. ....	84

## G

Gabellieri R. ....	81
Gabriel D. ....	30, 72

Gaetani D'A-M. ....	24
Galasco A. ....	81
Galvín B-P. ....	36
Galvin P. ....	41
Gan B-S. ....	42, 71
Gantes C. ....	32
Gao L. ....	41
Gatuingt F. ....	71
Gavras A-G. ....	69
Gazetas G. ....	49
Gentile C. ....	74, 80
Georgiou G. ....	50
Georgioudakis M. ....	50, 52
Gercek M. ....	35
Gerges Y. ....	26
Gerolymos N. ....	37
Geuzaine C. ....	72
Ghanbari E. ....	49
Ghareeb N. ....	29
Ghosh S. ....	42, 81
Giagopoulos D. ....	45
Giannakos S. ....	37
Giannopoulos V. ....	64
Gigliotti R. ....	51
Gil A. ....	63
Gilchrist D. ....	56
Gimenez J. ....	54
Givoli D. ....	54, 79
Gkesos P. ....	66
Gkoktsi K. ....	73
Gkoumas K. ....	24
Glema A. ....	84
Gluck N. ....	62
Goit C. ....	25
Gomes A. ....	70
Goosen J. ....	63
Görk S. ....	73
Graveleau M. ....	53
Gravouil A. ....	30
Greco L. ....	41
Greffet N. ....	42
Grosu E. ....	55
Gualano D. ....	57
Guedes J-M. ....	52
Guendel M. ....	40
Guida D. ....	80
Gülçat Ü. ....	65
Gultom R. ....	51
Günay S. ....	65

## H

Haber Z. ....	35
Haboussa D. ....	24
Haddar M. ....	57
Hage C-F. ....	65, 75
Hagstrom T. ....	79
Hak S. ....	44
Hakhamaneshi M. ....	69
Hamidi A. ....	49
Hamza C. ....	40
Han B. ....	30
Hancioğlu B. ....	27, 33

Harari I. ....	55
Hartmann S. ....	33
Hasel F-B. ....	33
Hashemi A. ....	65
Hassan W. ....	81
Hatzigeorgiou G. ....	37
Haukaas T. ....	31
He L. ....	45
Hededal O. ....	48
Hemmati A. ....	28
Henriques J. ....	34
Henry R. ....	69
Hernandes J. ....	52
Heron C. ....	25
Hervé G. ....	71
Heuer-Schwarzer P. ....	60
Hildebrand M. ....	33
Hillewaere J. ....	27
Hillier R. ....	29
Hillman M. ....	24
Hjajj M. ....	40
Hoffmeister B. ....	40
Hollweg F-R. ....	56
Hori M. ....	55
Hosseini M. ....	43
Housiadas K. ....	50
Hračov S. ....	34
Hughes T. ....	32, 33
Huh H. ....	54, 80
Hulea R. ....	52
Hurtado G-J-E. ....	31
Hussein M. ....	73
Hutchinson T. ....	33, 69
Huttunen T. ....	46

## I

Iannucci L. ....	29
Ibrahimbegović A. ....	50
Icer E. ....	56
Ichchou M. ....	26, 57
Ichimura T. ....	55
Idelsohn S. ....	54
Idesman A. ....	30
Ido Y. ....	74
Iervolino I. ....	28, 32, 40
Ilic D. ....	56
Ilyin D. ....	67
Imai Y. ....	56
Impollonia N. ....	41
Indeitsev D. ....	59
Irini D-M. ....	48
İrtem E. ....	33
Isailovic V. ....	38
Isakovic T. ....	27, 33, 35
Ishikawa T. ....	56
Isobe D. ....	27, 74

## J

Jacquet-Richardet G. ....	35
Jafarian Y. ....	83, 84
Jalayer F. ....	28, 32

Järvi T. ....	60
Javadi Y. ....	52
Javaherian Y-A. ....	31
Javili A. ....	84
Jean-Marc B. ....	71
Jehel P. ....	50
Jensen H. ....	54
Jeong C. ....	72
Jeremić B. ....	48, 54
Jézéquel L. ....	49
Johannes M. ....	81
Johnson G. ....	29
Jouve F. ....	52
Juárez-Luna G. ....	44
Jurado C. ....	63

## K

Kaipio J. ....	46
Kalantari A. ....	48
Kalkan A. ....	65
Kallivokas L. ....	72
Kampitsis A. ....	37
Kaoullas G. ....	50
Kappos A. ....	25, 52
Karabalis D. ....	74
Karabinis A-I. ....	39
Karadogan F. ....	33
Karakitsios P. ....	41
Karakostas C. ....	35, 79
Karamanos S. ....	40, 66, 75
Karantoni F. ....	52
Karapetrou S. ....	42
Karatarakis A. ....	41, 67
Karatzetzou A. ....	49, 73
Karavasilis T. ....	29
Karayannis C. ....	52, 83
Karela N. ....	35
Karve P. ....	72
Karydakis P. ....	47
Kassinou S. ....	50
Katafygiotis L. ....	45
Katakalos K. ....	43, 57
Kawai H. ....	24
Kazanci Z. ....	74
Kazantzi A. ....	31
Khalili N. ....	76
Khatiwada S. ....	51
Kiendl J. ....	32
Kiley A. ....	49
Kırçıl M-S. ....	33
Kiriakopoulos P. ....	83
Kiselev A. ....	61
Klar A. ....	76
Kloukinas P. ....	26
Kobojevic S. ....	69
Kohei M. ....	27
Kohiyama M. ....	27
Koidis G. ....	57
Kojic M. ....	38
Kojic N. ....	38
Kokkinos O. ....	51
Kollmannsberger S. ....	41, 55



Kolman R.....	30, 72
Komodromos P.....	51, 65
Kongar I.....	46
Kontari M.....	52
Kontoe S.....	30, 31
Kopačka J.....	30, 72
Korunovic N.....	56
Kostic S.....	63
Kostinakis K.....	79
Kotoulas L.....	43
Kougioumtzoglou I.....	32
Kouris L.....	52
Kouroussis G.....	49
Kozikopoulos E.....	57
Kremmyda G.....	27
Krenk S.....	48, 71
Krylov S.....	67
Kuleli M.....	59
Kurata M.....	42, 71
Kutter B.....	69
Kwon O-S.....	59
Kyriakides N.....	65
Kyriazis P.....	42
Kyrkos M.....	45

## L

Lagaros N.....	44, 52, 58, 72
Laghrouche O.....	64
Lähivaara T.....	46
Lala S.....	81
Lalith M.....	55
Lamarque C-H.....	37
Lampropoulos A.....	35
Landi L.....	79, 81
Larkin T.....	51
Lascar L.....	62
Lashgari A.....	83
Lavan O.....	34
Lazar N.....	24
le Corvec V.....	78
le Nguyen K.....	71
le Page B.....	58
le Thanh-Nam.....	71
Lebedev A.....	78
Lebesis N.....	64
Leblebici E.....	74
Lee C-Ha.....	77
Lee C-He.....	63
Legner D.....	38
Lekidis V.....	52
Lemaire S.....	84
Lemieux M-A.....	69
Lemos J.....	73
Le noir D.....	49
Leoni G.....	47
Leroux J.....	53
Lesgidis N.....	59
Lesičar T.....	84
Lestoille N.....	57
Lévêque P.....	78
Liang X.....	65
Liberatore L.....	28

Limam A.....	30, 71
Lin S-P.....	77
Lind N.....	40
Lisitsa V.....	64
Littlefield D.....	77
Liu W.....	69
Lo S-H.....	32
Loerke F.....	58
Lombaert G.....	27, 36, 41, 45, 64, 73
Lombardi A.....	28
Loo W-Y.....	51
Lopes M-L.....	31
Lopez-Caballero F.....	83
Louca L.....	36
Loula A.....	72
Lourenço P.....	73
Lovadina C.....	32
Lucchini A.....	28
Lucci A.....	75
Luis G-P-B.....	31
Lurie K.....	61
Lygidakis G.....	76

## M

Ma Q.....	51, 62, 78
Macedo L.....	70
Macías C.....	48
Mackie K.....	29, 62
Madabhushi G.....	25
Maddaloni G.....	25, 59, 60, 77
Madsen S.....	48
Maeso O.....	41
Magallanes J.....	29
Magenes G.....	31, 42, 44
Magliulo G.....	59, 60
Mahmood M-S.....	64
Makris N.....	62
Maldonado J.....	40
Malekakis A.....	35
Malendowski M.....	84
Maltidis G.....	66
Manalis I-C.....	52
Manconi E.....	61
Mandal T.....	42
Manfredi G.....	24, 28, 32, 39, 44
Maniatakis C.....	44
Manjarrez L-E.....	40
Manna B.....	75
Manni C.....	33
Manos G.....	35, 43, 57
Manzano J.....	83
Manzoni S.....	80
Marano G.....	63, 78
Maravas A.....	74
Marcolini M.....	63
Margenov S.....	40
Markogiannaki O.....	25
Markou G.....	59, 76
Marques M.....	70
Marti J.....	54
Martinelli L.....	70
Martinez J-J-M.....	45

Martinez J-P.....	45
Martinez V-J-M.....	45
Martins L.....	70
Martins N.....	27
Martinuzzi R.....	28
Maruyama Y.....	30
Marzocchi W.....	28
Massart T.....	58
Matignon D.....	71
Matsou V.....	43
Matsumoto N.....	36
Mattern S.....	78
Matthies H.....	50, 55
May R.....	31
Mazzieri I.....	64
Mazzolani F.....	64
Mazzon N.....	57
Mbewu J.....	38
McCarthy M.....	56
Mecitoğlu Z.....	65
Medina C.....	41
Megalooikonomou K.....	35
Mehani Y.....	64
Mehanny S.....	39
Mendes N.....	73
Mendonça C.....	34
Meslem A.....	24
Messervey T.....	45
Metsis P.....	67
Mezzina M.....	39, 42
Michailidis G.....	52
Michel L.....	71
Mihanović A.....	74
Milivojević N.....	50
Milosevic M.....	38
Milosevic Z.....	38
Milovanovic J.....	56
Min Z.....	28
Minoura S.....	60, 76
Miraei M.....	84
Miroslav Ž.....	50
Mirzaei I.....	43
Mitoulis S.....	25, 35
Mitropoulou C.....	58, 72
Miyamura T.....	24, 27, 55
Mobasher M.....	79
Mochalova Y.....	59
Modena C.....	57
Moehle J.....	81
Moës N.....	36, 53, 55
Mohareb R.....	79
Mohebi M.....	28
Molinari J-F.....	60
Mollaioli F.....	28
Monteiro A.....	70
Montenegro P-A.....	36
Montoya-Noguera S.....	83
Morandi P.....	44
Mordant C.....	62, 77
Moreau K.....	36
Morfidis K.....	52, 79
Morga M.....	81
Morganti S.....	33

Morinishi K.....	56
Morozov N.....	67
Morsbøl J.....	61
Mosalam K.....	65
Moseler M.....	60
Moussa L.....	64
Mouyiannou A.....	31
Mucciante L.....	58
Mugan A.....	56
Mulas M-G.....	70
Munteanu L.....	42
Murakami T.....	47
Murmu T.....	56
Murotani K.....	24
Museros P.....	41
Musil M.....	42
Mylonakis G.....	25, 26, 74

## N

Nackendorst U.....	58
Naess A.....	32
Naga T.....	66
Nagata S.....	30
Nakamura N.....	27, 48
Nalbadidou A.....	43
Nali P.....	58
Naoto M.....	27
Náprstek J.....	34
Nasr D.....	82
Nasri R.....	26
Nathwani J.....	40
Natsiavas S.....	45, 47
Naumova N.....	59
Navrat T.....	76
Nazari M.....	69
Negro P.....	33
Negulescu C.....	72, 73
Nélias D.....	53
Nestovito G.....	77
Netti A.....	78
Neves G-M.....	36
Nielsen M.....	71
Nielsen R.....	67
Nieto Ferro A.....	42
Nigro N.....	54
Nikbay M.....	74
Nikolaou N.....	47
Nikolic D.....	38
Nikolić M.....	72
Nikolić Ž.....	49, 72
Nikolos I.....	76
Nilvetti F.....	80
Nishina M.....	47
Niu B.....	82
Nouchi E.....	42, 71
Nouy A.....	58
Nuti C.....	62

## O

Obradovic M.....	38
Occhiuzzi A.....	77

Ogino M.....	55
Ohsaki M.....	27, 55
Okazawa S.....	55
Okrouhlik M.....	30
Olhoff N.....	82
Oliveira C.....	58, 73
Oliveski R-C.....	56
Oliveto N.....	74
Olmati P.....	29
Oñate E.....	54
Ouisse M.....	26
Ouissi M-N.....	40
Owen J.....	73
Özcan A.....	41, 55
Ozden S.....	27
Ozkan U.....	27
Ozkaynak H.....	74

## P

Padrón L.....	41
Paggi M.....	53
Paiva F.....	34
Palaioxorinou A.....	71
Panoskaltis V.....	46, 66
Pantazopoulou S.....	35, 52, 64
Pantoli E.....	33
Papadimitriou C.....	45
Papadioti D-C.....	45
Papadopoulos S.....	35
Papadopoulos V.....	51, 75
Papadarakakis M.....	31, 32, 41, 44, 50, 51, 52, 58, 67, 72, 76, 79
Papaloizou L.....	65
Papanastasiou P.....	75
Papatheoharis T.....	75
Papavasileiou G.....	47
Papazafeiropoulos G.....	32, 79
Papia M.....	44
Papoutsellis S.....	83
Pappalardo C-M.....	80
Paraskevopoulos E.....	47
Pardalakis T-A.....	39
Pardalopoulos S.....	52
Park K-C.....	54, 72, 80
Parodi O.....	38
Patelli E.....	40
Pavic A.....	73
Pelosi W.....	38
Peña F.....	83
Penna A.....	26, 31, 42, 81
Perdikaris P.....	75
Pérez-Rocha L-E.....	40, 48
Perotti F.....	70
Perrin G.....	34, 57
Petalas A.....	57
Peters H.....	63
Petrini F.....	24
Petrone C.....	60
Petrovic D.....	38
Petruska J.....	76
Petruzzelli F.....	40
Philippou M.....	50

Picart D.....	36
Piccardo G.....	73
Pickering T.....	46
Pitilakis D.....	25, 49, 73
Pitilakis K.....	25, 63
Plešek J.....	30, 72
Plevris V.....	32, 46, 52, 79, 81
Polese M.....	24, 63
Polycarpou P.....	51
Pope D.....	29
Porco F.....	65, 72
Pourjenabi M.....	49
Prieto A.....	72
Prota A.....	24, 28, 59, 63
Psarropoulos P.....	31
Psycharis I.....	27, 44, 73
Pugi F.....	83
Pujari N.....	42, 81

## Q

Quarteroni A.....	64
Quenneville P.....	51

## R

Rabinovich D.....	79
Racic V.....	73
Radovic M.....	38
Raffaele D.....	39, 42, 81
Ragni L.....	28
Rakić D.....	50
Rama R.....	38
Ramadan O.....	39
Ramm E.....	68
Rashed Y.....	66, 79
Reali A.....	32, 33, 41
Rebelo C.....	34
Reddy B-D.....	38
Redmond L.....	79
Remedia M.....	49
Réthoré J.....	24
Reyes J-C.....	46
Rezayat A.....	27
Reziakolaei A-Y.....	43, 48
Ricci P.....	44
Richardson G.....	49, 58
Ricles J.....	29, 43, 69
Rinaldi V.....	40
Ritto T.....	57
Riva P.....	77
Rixen D.....	66
Robles L.....	83
Rocha P.....	70
Rochinha F.....	57
Rodrigues H.....	52, 62, 70
Roehl D.....	41
Romero O-A.....	36
Romero P.....	60
Rosić B.....	50
Rossetto T.....	46
Rota M.....	31, 42
Roth J.....	24

Rouzaud C. ....	71
Rovithis E. ....	25
Ruess M. ....	41, 55

## S

Saad G. ....	82
Sabzei A. ....	43, 48
Sadek M. ....	65
Sadoulet R-E. ....	26
Sadovskaya O. ....	51, 59
Sadovskii V. ....	51, 59
Safak E. ....	45
Sahin M. ....	65
Sahoo S. ....	75
Saiidi M. ....	32
Saiidi S. ....	35
Saini A. ....	32
Saisi A. ....	74
Saito H. ....	76
Saitoh M. ....	25
Sakai T. ....	27
Salimzadeh S. ....	76
Salonikios T. ....	52
Salvatore W. ....	40, 51
Sampaio R. ....	34, 57, 58
Sanders D. ....	35
Sangalli G. ....	32
Santisi D'avila M-P. ....	59
Santos da Silva J-G. ....	80
Sapountzakis E. ....	37, 66
Saranik M. ....	49
Sarris E. ....	75
Sarvghad M-A. ....	48
Sause R. ....	29, 43, 69
Saveljic I. ....	38
Saygili Ö. ....	73
Schau H. ....	81
Schellenberg A. ....	65
Schindler T. ....	53
Schmidt R. ....	29
Schmied C. ....	78
Schreiber D. ....	67
Schwarzer N. ....	60
Schweizerhof K. ....	78
Scotto di Santolo A. ....	26
Seguí B. ....	35
Semblat J-F. ....	59
Sengupta A. ....	75
Serafin M. ....	76
Seriani G. ....	79
Sextos A. ....	35, 59
Shahrour I. ....	75
Sharma K. ....	75
Shekhovtsov A. ....	46
Shekhovtsov V. ....	46
Shiiba T. ....	47
Shimada M. ....	68
Shinobu Y. ....	27
Sibgatullin T. ....	67
Sica S. ....	26
Sideridis E. ....	49
Siegert D. ....	78

Sieira A-C. ....	80
Silva J. ....	70
Silva Vieira C. ....	31
Silveira R. ....	58
Simeon B. ....	33
Simões d-S-L. ....	34
Simonelli A. ....	26
Simos N. ....	43
Sireteanu T. ....	42
Sivaselvan M. ....	74
Skatulla S. ....	38
Slavković R. ....	50
Slavković V. ....	50
Slawson T. ....	24
Smekal A. ....	36
Smirnov A. ....	78
Smith-Pardo P. ....	46
Smoljanović H. ....	49
Smyrou E. ....	44
Smyth A. ....	69
Sogabe M. ....	36, 60
Soimoiris G. ....	75
Soize C. ....	34, 57
Solari D. ....	46
Soldatos D. ....	66
Solis M. ....	45
Sorić J. ....	84
Sorokin S. ....	61, 82
Sorokin V. ....	61
Soroushian A. ....	42, 43, 48
Soulis V. ....	57
Soydan C. ....	33
Spijker P. ....	60
Spiridonakos M. ....	45
Spizzuoco M-C. ....	77
Spyrakos C. ....	44, 83
Sritharan S. ....	69
Stanciulescu I. ....	61
Stathi C. ....	43, 44
Stavrinidis C. ....	54
Stavroulakis G. ....	52
Steenbergen R. ....	78
Stefanidou S. ....	25
Stefano P. ....	33
Stefanou G. ....	50, 51
Stefanou I. ....	73
Steinbuch R. ....	37
Steinmann P. ....	68, 84
Stempniewski L. ....	66
Stevanovic D. ....	56
Stojadinović B. ....	29, 62
Stojkovic M. ....	56
Stoykov S. ....	40
Stroecker R. ....	79
Su C. ....	79
Sugimoto S-I. ....	24
Sugiyama H. ....	47
Sullivan T. ....	39, 63
Sun L. ....	28
Sunami H. ....	47
Susler S. ....	74
Syntzirma D. ....	64
Syrakos A. ....	50

## T

Tabuchi T. ....	56
Tahmasebi E. ....	69
Taiebat M. ....	48
Tanabe M. ....	36
Tanabe Y. ....	36
Tanaka S. ....	55
Tanner R. ....	50
Tantele E. ....	65
Tardini A. ....	79
Taroudakis M. ....	79
Tasiopoulos T-P-K. ....	39
Taskari O. ....	59
Tassotti L. ....	39
Taucer F. ....	33
Taylor C. ....	26
Tcheverda V. ....	64
Tecchio G. ....	57
Tegos I. ....	25, 35, 46, 57, 71
Tegou S. ....	46, 57
Teng Z. ....	38
Terao A. ....	47
Thauampthet J. ....	57
Themis E. ....	38
Theofanous M. ....	43, 57
Theotokoglou E. ....	49
Thermou G. ....	43, 71
Thierry B. ....	72
Tiso P. ....	63
Tkachuk A. ....	30
Tokunaga M. ....	60
Toniolo G. ....	26
Tonković Z. ....	84
Torquati M. ....	77
Tosto A. ....	39, 42
Tovstik P. ....	46, 60
Tovstik T. ....	46, 60
Trajanovic M. ....	56
Tran A. ....	34
Tran P. ....	41
Tremblay R. ....	29
Trevelyan J. ....	64
Triantafyllou S. ....	46
Trifunovic M. ....	56
Troclet B. ....	26
Troglič B. ....	74
Tsakalidis V. ....	43
Tsang H-H. ....	32
Tsantaki S. ....	28
Tsiavos A. ....	29
Tsinidis G. ....	25
Tsioukas V. ....	83
Tsioulou O. ....	35
Tsipiras V. ....	66
Tsompanakis Y. ....	31
Tubaldi E. ....	31, 39
Tubino F. ....	73
Tuncer İ-H. ....	74
Ture S. ....	37
Turkel E. ....	54
Turkmen H. ....	74
Tzadka U. ....	62

Tzavara I..... 31

## U

Uchida S..... 76  
Uehan F. .... 76  
Ulbin M. .... 30  
Ulbrich H. .... 53  
Ulrich T. .... 72  
Ulusoy S-I. .... 33  
Underwood G. .... 33  
Uva G. .... 41, 65, 72, 81  
Uy B. .... 29

## V

Vamvatsikos D. .... 31  
van den Berg R. .... 78  
van den Bosch D. .... 66  
van den Broeck P. .... 73  
van der Seijs M. .... 66  
van Keulen F. .... 63  
van Nimmen K. .... 73  
Vanali M. .... 80  
Vanlanduit S. .... 27  
Varelis G. .... 66, 75  
Vargas Alzate Y-F. .... 31  
Varum H. .... 62, 70  
Varygina M. .... 59  
Vasdravellis G. .... 29  
Vasseur L. .... 62  
Vassiliou M. .... 29, 62  
Vassilopoulou I. .... 32  
Vathi M. .... 75  
Vayas I. .... 47  
Veljkovic M. .... 34  
Verderame G-M. .... 44  
Vergara C. .... 54  
Verlinden O. .... 49  
Verrucci E. .... 46  
Viana E. .... 41  
Vierendeels J. .... 27  
Vila Pouca N. .... 70

Villamil P. .... 71  
Vishnevsky D. .... 64  
Vitkovic N. .... 56  
Vlastelica I. .... 38  
Vohralik M. .... 76  
Voronkova E. .... 60  
Vosooghi A. .... 32  
Votsis R. .... 65  
Voudrias E. .... 84  
Vryzidis I. .... 51  
Vulović S. .... 50

## W

Waeytens J. .... 78  
Wagdy M. .... 79  
Wahrhaftig A. .... 37  
Wakamatsu K. .... 30  
Wakui H. .... 36  
Walker S. .... 49  
Walls K. .... 77  
Wang F. .... 41  
Watkins J. .... 69  
Weeger O. .... 33  
Weekes S. .... 82  
Weiss M. .... 37  
Weisser T. .... 26  
Welch D. .... 39, 63  
Wendeler C. .... 36  
Wever U. .... 33  
Wiebe L. .... 62  
Wijker J. .... 49  
Wilkinson S. .... 46  
Wood D. .... 28  
Wotherspoon L. .... 78  
Wu Y. .... 29

## X

Xenis F. .... 50  
Xiangliang D. .... 77  
Xilin L. .... 77  
Xu B-Q. .... 32

## Y

Yalcin C. .... 74  
Yamada T. .... 24  
Yamaguchi T. .... 56  
Yamamoto H. .... 47  
Yamamoto M. .... 27  
Yamashita T. .... 27  
Yan W-J. .... 45  
Yaskevich A. .... 60  
Ying Z. .... 77  
Yoshida N. .... 30  
Yoshimura S. .... 24, 27  
Yousef S. .... 76  
Yüce S. .... 33  
Yüksel E. .... 33, 74  
Yurchenko D. .... 32

## Z

Zacharenaki A. .... 31  
Zacharov P. .... 61  
Zafarani H. .... 84  
Zafati E. .... 48  
Zania V. .... 30, 31  
Zarinkamar S. .... 65  
Zdravković L. .... 30  
Zdravkovic N. .... 38  
Zengin E. .... 73  
Zerzour A. .... 64  
Zghal S. .... 26  
Zhang C. .... 71  
Zhang Z. .... 58  
Zhou Y. .... 28  
Ziaran S. .... 42  
Ziemys A. .... 38  
Živaljić N. .... 49  
Živković M. .... 50  
Žižmond J. .... 24  
Zona A. .... 28, 47  
Zoubek B. .... 27, 33  
Zuccaro G. .... 63

Notes:

Notes:

Notes:

Notes:



Notes:

Notes:

Notes:

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Notes:

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