

ECCOMAS MSF 2015 – FINAL TECHNICAL PROGRAM

[Tuesday, June 9, 2015](#)

16:00-19:00 Registration Amphi.

[Wednesday, June 10, 2015](#) (PL=40 min plenary, KL=30 min keynote, L=15 min lecture)

8:30-9:00 Registration Amphi

9:00-11:00 Opening Ceremony & Plenary Lectures I [Chair: M. Hrasnica, N. Limnios, H. Matthies] Amphi

PL: Opening of the 2nd Int. Conference on Multiscale Computations for Solids and Fluids

TITLE TO BE OR NOT TO BE INTRUSIVE? – SOLUTION OF STOCHASTIC AND PARAMETRIC ...

PL: H.G. Matthies

POISSON APPROXIMATION IN STOCHASTIC MODELS

PL: N. Limnios

11:00-11:30 Coffee-Break LUNCH AREA

11:30-13:30 Technical Sessions W1 [Organizer / Chair : P. Jehel, M. Nikolic] Amphi

A MULTI-SCALE STOCHASTIC MODEL FOR CONCRETE IN UNIAXIAL CYCLIC LOADING ...

KL: P. Jehel

ROCK MECHANICS MODEL CAPABLE OF REPRESENTING FAILURE PHENOMENA WITH ...

KL: M. Nikolic, A. Ibrahimbegovic, P. Miscevic, N. Stambuk-Cvitanovic

HOMOGENIZED ELASTIC PROPERTIES OF ROCKS WITH STOCHASTIC FRACTURE DISTRIB...

KL: M. Gutierrez, D-J. Youn

MECHANICAL TESTS ON MASONRY WALLS

KL: M. Hrasnica, N. Ademovic, A. Kurtovic, F. Biberkic, S. Medic

11:30-13:30 Technical Sessions W2 [Organizer / Chair: A. Zilian, B. Beckers] GF

COMPUTATIONAL MODELING OF FESI ENERGY HARVESTING DEVICES

KL: S. Ravi, A. Zilian

HYDROELASTIC ANALYSIS OF LONG SPAN SUBMERGED FLOATING TUNNELS UNDER SEISMIC..

KL: J-H. Kim, K. Yoon, P-S. Lee

AN UP-TO-DATE RESEARCH PROGRAM TO SUPPORT THE URBAN PHYSICS PARADIGM

KL: B. Beckers

MULTI-SCALE MODELING OF IMPERFECT INTERFACES AND APPLICATIONS

KL: S. Dumont, F. Lebon et al.

11:30-13:30 Technical Sessions W3 [Organizer / Chair: I. Kozar, S. Mamouri] AF

DETERMINATION OF SCALING MATRIX FOR RELATED STRUCTURES

KL: I. Kožar, N. Toric-Malic, T. Rukavina

MULTISCALE APPROACH TO STUDY THE EFFECT OF INTERFACE TRANSITION ZONE ...

KL: J.L. Zhang, H. Mang et al.

DESIGN OF TUNED MASS DAMPTERS IN FUNCTION OF TESTING STRUCTURE'S MECH

KL: M. Kozul, B. Soft, D. Saravanja

ANALYSIS OF GEOMETRIC NONLINEAR INSTABILITY OF 2D FRAME STRUCTURE USING IMPL...

KL: El H. Mourid, S. Mamouri, A. Ibrahimbegovic

13:30-14:30 Lunch-Break

LUNCH AREA

14:30-16:30 Technical Sessions W4 [Organizer / Chair: Ž. Nikolić, N. Ademovic]

Amphi

NUMERICAL ANALYSES OF CONFINED MASONRY STRUCTURES BY FINITE DISCRETE ELEM...

KL: Ž. Nikolić, N. Živaljić, H. Smoljanović

VARIOUS STRENGTHENING METHODS FOR AN EXISTING MASONRY BUILDING IN BOSNIA ...

KL: N. Ademovic

A MULTI-SCALE AND MULTI-PHYSICS METHODOLOGY FOR HOLLOW CLAY BRICK MASONRY

KL: A. Sridi, H. Ben Dhia

ON NUMERICAL MODEL FOR DYNAMIC ANALYSIS OF PLASTERED MASONRY-INFILLED STEEL...

KL: G. Baloevic, J. Radnic, N. Grgic, D. Matesan

14:30-16:30 Technical Sessions W5 [Organizer/ Chair :, D. Lucor, A. Ouahsine]

GF

A MULTISCALE MODEL FOR DESIGN AND SCALE-UP OF GAS-LIQUID STIRRED TANK REACTORS

KL: H. Bashiri, F. Bertrand, J. Chaouki

3D NUMERICAL SIMULATION OF WAVE ENERGY ABSORPTION OF A SUBMERGED CYLINDER

KL: S. Cai, A. Ouahsine et al.

MULTISCALE MODELING OF COUPLED FLUID-STRUCTURE INTERACTION IN CYLINDER ARRAYS

KL: A. Gineau, D. Lucor et al.

PHYSICS-COMATIBLE ARBITRARY-LAGRANGIAN-EULERIAN SCHEME FOR MULTIFLUID FLOWS

KL: T. Vazquez-Gonzalez, C. Fochesato, A. Llor

14:30-16:30 Technical Sessions W6 [Organiser / Chair:]

AF

SPEARKER PREPARATION & COMPUTER ROOM

19:30-22:00 Welcome Reception (Bosnjacki Institute) [Organiser / Chair: M. Zlatar]

Thursday, June 11, 2015 (PL=40 min plenary, KL=30 min keynote, L=15 min lecture)

9:00-11:00 Plenary Lectures II [Organizer / Chair: H. Ben Dhia, A. Ouahsine]

Amphi

A REDUCED-WEAK COUPLING FOR MULTI-SCALE DYNAMIC PROBLEMS

PL: H. Ben Dhia et al.

IMMERSED BOUNDARY METHOD FOR EFFICIENT IMPLICIT FSI SIMULATIONS FOR INCOMPRESSIBLE FLOWS...

PL: A. Ouahsine et al.

MULTISCALE MODELS FOR DRUG TRANSPORT IN TUMORS AND BIOLOGICAL TISSUE

PL: M. Kojic

11:00-11:30 Coffee-Break

LUNCH AREA

11:30-13:30 Technical Session T1 [Organizer / Chair: M. Hrasnica, S. Medic]

Amphi

PRESTRESSING OF GLUED LAMINATED TIMBER BEAMS IN VARIABLE MOISTURE CONDITIONS...

L: S. Miljanović, M. Zlatar

IDENTIFICATION OF CONSTITUTIVE PARAMETERS FOR COUPLED PLASTICITY-DAMAGE AND SOFTENING MODELS

L: I. Imamovic, C. Knopf-Lenoir, B. Ayhan, A. Ibrahimbegovic

SEISMIC VULNERABILITY OF A HISTORICAL BUILDING IN TVRDJA USING DAMAGE RATIO COEF...

L: M. Hadzima-Nyarko, V. Mišetić, S. Lončar-Vicković, M. Jeleč, D. Morić

ADAPTIVE MODELING USING FINITE ELEMENT METHOD

L: M. Mušić, S. Medić, E. Ilić-Georgijević,

THREE-DIMENSIONAL NUMERICAL ANALYSIS OF REINFORCED EARTH WALLS INCLUDING ...

L: A. Skejic, A. Balic

PREDICTION OF YOUNG'S MODULUS OF ELASTICITY OF CONCRETE BY HOMOGENIZATION ...

L: E. Hadžalić, S. Medić, E. Karavelić

THERMOMECHANICAL COUPLING AND LOCALIZED FAILURE WITH NONLINEAR INSTABILITY ...

L: E. Hajdo, A. Ibrahimbegovic, V-M. Ngo, S. Dolarevic

LOCALIZED FAILURE AND SOFTENING IN DYNAMICS

L: X-N. Do, D. Brancherie, A. Ibrahimbegovic

11:30-13:30 Technical Sessions T2 [Organizer / Chair: A. Ouahsine, E. Hadzic]

GF

THE APPLICATION OF MATHEMATICAL MODELING IN SOLVING OF THE HYDRO-TECHNICAL ...

KL: E. Hadžić, H. Milisić, N. Lazović

SHIP RESISTANCE CALCULATIONS IN RESTRICTED WATERWAYS TAKING THE EFFECT ...

KL: F. Linde, A. Ouahsine, N. Huybrechts, Ph. Sergent,

NUMERICAL SOLUTIONS OF WATER MASS OSCILLATION IN HPP AND CHOICE OF DIMENSIONS...

KL: H. Kalajdzisalihović, H. Milisić, Z. Milašinović

MULTI-SCALE SIMULATION OF NEWTONIAN AND NON-NEWTONIAN MULTI-PHASE FLOWS

KL: J.L. Prieto

11:30-13:30 Technical Sessions T3 [Organizer / Chair :] AF

SPEAKER PREPARATION & COMPUTER ROOM

13:30-14:30 Lunch-Break LUNCH AREA

14:30-16:30 Technical Sessions T4 [Organizer / Chair: B. Rosic, A. Kucerova] Amphi

BAYESIAN IDENTIFICATION OF MODEL PARAMETERS DESCRIBING ELASTOPLASTICITY

KL: B. Rosic, H.G. Matthies

MICROSTRUCTURE COMPRESSION BY OPTIMIZED WANG TILES

KL: A. Kucerova, J. Novak, J. Zeman

MULTISCALE ELASTIC PROPERTIES OF GRAPHENE FOR MODERATE DEFORMATIONS

KL: E. Marenic, A. Ibrahimbegovic

MESO-MECHANICALLY MOTIVATED MODELING OF LAYERED CFRP ACCOUNTING FOR ...

KL: J. Simon, D. Höwer, B. Stier, S. Reese

14:30-16:30 Technical Sessions T5 [Organizer / Chair: J. Soric, J. Murin - -] GF

A LARGE STRAIN MULTISCALE APPROACH USING C1 CONTINUOUS FINITE ELEMENTS

KL: J. Soric, T. Lesicar, Z. Tonkovic

ON MULTI-SCALE MODELS FOR THE CURING PROCESS IN MAGNETO-SENSITIVE POLYMERIC...

KL: M. Hossain, G. Chatzigeorgiou, F. Meraghni, P. Steinmann

SHEAR CORRECTION FUNCTION DERIVATION FOR THE FGM BEAMS

KL: J. Murín, J. Hrabovsky, V. Kutiš, J. Paulech

TRACING EQUILIBRIUM PATHS OF STRUCTURES WITH EVOLVING CRACKS

KL: A. Stanić, B. Brank, J. Korelc, A. Ibrahimbegović

14:30-16:30 Technical Sessions T6 [Organizer / Chair: - -] AF

SPEAKER PREPARATION & COMPUTER ROOM

21:30-22:00 Cevabdžinca Hodzic Sarajevo Old Town [Organizer / Chair: A. Ibrahimbegovic]

22:00-24:00 'Night life' of Sarajevo Old Town Cafes & Bars [Organizer / Chair: A. Ibrahimbegovic]

Friday, June 12, 2015 (PL=40 min plenary, KL=30 min keynote, L =15 min lecture)

9:00-11:00 Technical Sessions F1 [Organizer / Chair: M-C. Ho Ba Tho, M. Kojic] Amphi

COUPLING MULTISCALE X-RAY PHYSICS AND MICROMECHANICS FOR COMPOSITION AND ...

KL: V. Vass, P. Hasslinger, A. Dejacó, R. Blanchard, G. Orlygsson, P. Gagliolo, C. Hellmich

PATIENT SPECIFIC FINITE ELEMENT MODELS OF THE LUMBAR SPINE WITH MATERIAL-DRIVEN MESH DERIVED FROM COMPUTED TOMOGRAPHY

KL: H-Q. Nguyen, T-T. Dao, A. Rassineux, M-C. Ho Ba Tho

SUBJECT SPECIFIC MODELING OF FACIAL MIMICS DERIVED FROM MRI DATA

KL: A.-X. Fan, S. Dakpe, T-T. Dao, Ph. Pouletaut, M. Rachik, M-C. Ho Ba Tho

SIMULATION OF PROCESSES IN LIVING CELLS: TOWARDS THE MODELLING OF METABOLIC ...

KL: T. Elbinger, M. Gahn, M. Neuss-Radu, P. Knabner

9:00-11:00 Technical Sessions F2 [Organizer / Chair: A. Serdarevic, Z. Milašinovic] GF

MODEL BASED CONTROL OF FLITER RUN TIME ON POTABLE WATER TREATMENT PLANT

L: S. Jusić, Z. Milašinovic

NUMERICAL MODELING OF WATER FLOW THROUGH THE NATURAL RIVERBED FOR HIGH ...

L: N. Lazović, E. Hadžić, H. Milišić

APPLICATION MATHEMATICAL MODELS OF PROTECTION OF AREAS WITH HIGH FLOOD RISK

L: H. Milišić, H. Kalajdžisalihović, A. Mulaomerović- Šeta

FLOODPLAIN MODELING USING NUMERICAL MODEL HEC-RAS

L: N. Lazović, E. Hadžić, H. Milišić

MODELING AND ASSESSMENT OF WATER QUALITY IN A NATURAL RIVERS

L: H. Milišić, N. Lazović, E. Hadžić

WASTEWATER PROCESS MODELING

L: A. Serdarevic, A. Džubur

TWO MODELS FOR HYDRAULIC CYLINDERS

L: J. Mäkinen, A. Ylinen, R. Kouhia

CEMENT PASTE MORPHOLOGIES AND EFFECTIVE DIFFUSIVITY USING LATTICE BOLTZMANN...

L: E. Walther et al.

9:00-11:00 Technical Sessions F3 [Organizer / Chair: N. Ademovic, S. Dolarevic] AF

SHAKE TABLE TESTING AND NUMERICAL MODELING OF CONCRETE COLUMN WITH FOUND..

L: N. Grgić, J. Radnić, G. Baloevic, D. Matesan

NONLINEAR STATIC ANALYSIS OF SLENDER REINFORCED CONCRETE WALL USING SAP 2000

L: M. Hrasnica, J. Medić

MARKOV CHAINS IN MONTE CARLO METHOD FOR SOLVING POISSON'S DIFFERENTIAL EQ...

L: E. Karavelić, S. Medic, M. Kokorus

STRUCTURAL MODELLING OF CLAY BLOCK MASONRY WITH THIN LAYER (RESIN) MORTAR

L: N. Ademović, A. Ibrahimbegovic

STATIC ANALYSIS OF CABLE NETS USING EQUIVALENT MEMBRANES

L: A. Zaimovic, S. Medic, S. Dolarevic, S. Dolarević

INFLUENCE OF MASONRY INFILL ON SEISMIC RESPONSE OF FRAME STRUCTURES

L: A. Muratović, N. Ademović

MARKOV CHAINS IN MONTE CARLO METHOD FOR SOLVING 2D TEMPERATURE FIELD

L: M. Kokoruš, S. Medić, E. Karavelić

CONVERGENCE TESTS FOR DIFFERENT TYPES OF FINITE ELEMENTS

L: R. Šehagić, S. Medić, S. Dolarević

11:00-11:30 Coffee-Break

LUNCH AREA

11:30-13:30 Plenary Lectures III-Closing Ceremony [Chair: A. Ibrahimbegovic, P.Villon]

Amphi

FAT LATIN HYPERCUPE SAMPLING AND EFFICIENT SPARSE POLYNOMIAL CHAOS ...

PL: P. Villon et al.

EFFICIENT DEVELOPMENT OF SOFTWARE FOR NONLINEAR MULTIPHYSICS PROBLEMS BY ...

PL: A. Ibrahimbegovic et al.

PL: CLOSING CEREMONY

13:30-14:30 Lunch-Break

LUNCH AREA

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17:00-20:00 Guided Tour of Sarajevo (starts at Hotel Europe)

[Organizer/Chair: M. Madzarevic]

20:00-23:00 Conference Banquet ECCOMAS MSF 2015

[Organizer/Chair: M. Madzarevic]