# Final Conference Program

| PROGRAM AND TIME TABLE |
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| TUESDAY, 5. July 2011 | | |
|---|---|---|
| Time | Place | Activity |
| 17.00-19.00 | Entrance hall | Registration |
| 19.00-21.00 | Rooms 1 | Opening Ceremony & Welcome Coctail |

| WEDNESDAY, 6. July 2011 | | |
|---|---|---|
| Time | Place | Activity |
| | | PLENARY LECTURES |
| | *Chairs*: *Katica Stevanović-Hedrih, Dragoslav Šumarac* | |
| 9.15-10.00 | Room 1 | *S.C. Sinha*<br>REDUCED ORDER MODELS FOR ANALYSIS AND CONTROL OF NONLINEAR SYSTEMS WITH PERIODIC COEFFICIENTS |
| 10.00–10.45 | Room 1 | *Mihailo Lazarević*<br>STABILITY OF FRACTIONAL ORDER TIME DELAY SYSTEMS |
| | | |
| 10.45-11.00 | Entrance hall | Coffee Break |
| 11.00-12.30 | Rooms 1, 2, 3 | Work in Sections |
| 12.30-12.45 | Entrance hall | Coffee Break |
| 12.45-15.30 | | Free Time |
| 15.30-16.45 | Rooms 1, 2, 3 | Work in Sections |
| 16.45-17.00 | Entrance hall | Coffee Break |
| 17.00-18.15 | Rooms 1, 2, 3 | Work in Sections |

| THURSDAY, 7. July 2011 | | |
|---|---|---|
| Time | Place | Activity |
| | | PLENARY LECTURES |
| | *Chairs: Teodor Atanacković, Milan Mićunović* | |
| 9.15-10.00 | Room 1 | *Alexander P. Seyranian*<br>INTERACTION OF EIGENVALUES WITH APPLICATIONS IN MECHANICS AND PHYSICS |
| 10.00–10.45 | Room 1 | *Miroslav Živković*<br>NUMERICAL METHODS IN FRACTURE MECHANICS |
| 10.45-11.00 | Entrance hall | Coffee Break |
| 11.00-12.30 | Rooms 1, 2, 3 | Work in Sections |
| 12.30-12.45 | Entrance hall | Coffee Break |
| 12.45-15.30 | | Free Time |
| 15.30-16.45 | Rooms 1, 2, 3 | Work in Sections |
| 16.45-17.00 | Entrance hall | Coffee Break |
| 17.00-18.15 | Rooms 1, 2, 3 | Work in Sections |
| 18.30-20.00 | Room 1 | Skupština SDM |
| 20.00-23.00 | Restaurant | Gala Dinner |

| FRIDAY, 8. July 2011 | | |
|---|---|---|
| Time | Place | Activity |
| | | PLENARY LECTURES |
| | *Chairs: Livija Cvetićanin, Miloš Kojić* | |
| 9.15-10.00 | Room 1 | *Rade Vignjević*<br>BRIEF REVIEW OF DEVELOPMENT OF THE SMOOTH PARTICLE HYDRODYNAMICS (SPH) METHOD |
| 10.00-11.15 | Rooms 1, 2, 3 | Work in Sections |
| 11.15-11.30 | Entrance hall | Coffee Break |
| 11.30-12.45 | Rooms 1, 2, 3 | Work in Sections |
| 12.45-13.00 | Entrance hall | Coffee Break |
| 13.00-14.00 | Room 3 | Work in Section |
| 14.00-14.30 | Room 1 | End of Conference |

| **ROOM 1** |
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| WEDNESDAY, 6. July 2011 |

| Section C, **Mechanics of Solid Bodies** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Milosav Ognjanović, Aleksandar Sedmak* | |
| | C-09 | M. Ćetković, Đ. Vuksanović<br>GEOMETRICALLY NONLINEAR ANALYSIS OF LAMINATE COMPOSITE PLATES |
| | C-01 | N. Anđelić, V. Milošević-Mitić, T. Maneski<br>THIN-WALLED OPEN-SECTION BEAMS – ONE VIEW TO THE OPTIMIZATION ACCORDING TO STRESS CONSTRAINTS |
| | C-26 | S. Kostić, B. Deretić-Stojanović, N. Marković, S.Stošić<br>EFFECT OF CREEP AND SHRINKAGE ANALYSIS ON DEFLECTIONS OF CONTINUOUS COMPOSITE BEAMS |
| | C-23 | D. Jevtić, D. Zakić, A. Savić, A. Radević<br>PROPERTIES OF COMPOSITE MATERIALS MADE WITH THE ADDITION OF RECYCLED RUBBER |
| | C-50 | B. Rosić, H. G. Matthies, M. Živković<br>A VARIATIONAL INEQUALITY FORMULATION OF STOCHASTIC ELASTOPLASTICITY |
| | C-25 | S. Kostić<br>EFFICIENT WIDE FLANGE SECTION DISCRETIZATION OF FIBER BEAM-COLUMN ELEMENTS FOR NONLINEAR RESPONSE |
| 12.30-12.45 | Coffee Break | |
| 15.30-16.45 | *Chairs: Radovan Slavković, Mihailo Lazarević* | |
| | C-08 | I. Čamagić, N. Vasić, Z. Burzić, P. Živković, Z. Vasić<br>APPLICATION OF FRACTURE MECHANICS PARAMETERS FOR WELDED JOINTS USABILITY TESTING |
| | C-12 | J. M. Đoković<br>THE BEHAVIOR OF THE INTERFACIAL CRACK BETWEEN THE TWO LAYERS UNDER CONDITIONS OF A STATIONARY TEMPERATURE FIELD |
| | C-13 | E. Džindo, A. Sedmak, B. Petrovski<br>ELASTO-PLASTIC FRACTURE MECHANICS FINITE ELEMENT ANALYSIS |
| | C-35 | B. Medjo, M. Rakin, M. Arsić, Ž. Šarkoćević, A. Sedmak<br>MICROMECHANICAL APPROACH TO INTEGRITY ASSESSMENT OF SURFACE DAMAGED PIPES |
| | C-49 | D. Ristić , J. Kramberger<br>NUMERICAL DETERMINATION OF CRITICAL STRESSES AND CRACK GROWTH IN A SPUR GEAR TOOTH ROOT |
| 16.45-17.00 | Coffee Break | |
| | *Chairs: Taško Maneski, A. Bhaskar* | |
| | C-22 | J. Jarić, R. Vignjević, Z. Golubović, D. Kuzmanović<br>ON ENTROPY FLUX OF ANISOTROPIC ELASTIC BODIES |

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| 17.00-18.15 | C-19 | T. Igić, D. Turnić<br>OPTIMUM GIRDER DESIGN WITH MULTIPLE FUNCTIONS |
| | C-34 | Lj. Marković, D. Ružić, H. Hertha-Haverkamp, C. Kardelky<br>SOME APPLICATIONS AND CONSTRAINTS OF THE FEM WITHIN THE MODAL ANALYSIS OF THE STRUCTURES |
| | C-32 | R. Mandić, R. Salatić, Z. Perović<br>NUMERICAL MODELLING OF MASONRY WALLS SUBJECTED TO LATERAL IN-PLANE LOAD |
| | C-51 | R. Slavković, V. Slavković, M. Živković, V. Dunić<br>STRESS INTEGRATION FOR FCC CRYSTAL PLASTICITY BY FINITE ELEMENT METHOD |

| **ROOM 2** |
|---|
| WEDNESDAY, 6. July 2011 |

| Section D, **Interdisciplinary and Multidisciplinary Problems** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Srđan Rusov, Dragan Milosavljević* | |
| | D-02 | Z. Gajić, S. Mandić, M. Milošević, S. Stojković<br>DETERMINATION OF MINIMAL ROLL RATE OF GYRO-STABILIZED ROCKET |
| | D-03 | S. Mandić, V. Vukmirica, S. Stojković<br>GUIDED EARTH TO EARTH MISSILE IMPACT POINT DISPERSION DUE TO COMMERcIAL IMU MEASUREMENT ERRORS |
| | D-09 | M. Radišić, M. Nefovska-Danilović, M. Petronijević<br>APPLICATION OF INTEGRAL TRANSFORM METHOD TO CALCULATE IMPEDANCE FUNCTIONS |
| | D-13 | M. Šelmić, R. Šelmić<br>PACKAGE TRANSPORT USING GRAVITY CHUTE SYSTEM - FUZZY LOGIC APPROACH |
| | D-11 | A. Simonović, I. Kostić, S. Stupar, N. Zorić<br>DESIGN PARAMETERS DEFINITION IN PRELIMINARY PROJECT PHASE OF A LIGHT PISTON – ENGINED HELICOPTER USING OPTIMIZATION METHODS |
| 12.30-12.45 | Coffee Break | |
| 15.30-16.45 | *Chairs: Ranislav Bulatović, Aleksandar Obradović* | |
| | D-04 | M. Milošević, D. Živanić, V. Đurković<br>OPTIMIZACIJA KADENCE LANSIRANJA RAKETA IZ SAMOHODNIH VIŠECEVNIH LASERA |
| | D-05 | M. Nefovska-Danilović, M. Petronijević , M. Radišić<br>ANALYSIS OF TRAFFIC INDUCED BUILDING VIBRATIONS USING SPECTRAL ELEMENT METHOD |
| | D-08 | S. Petronić, A. Milosavljević, A. Kovacević, B. Grujić, K. Čolić<br>LASER SHOCK PEENING OF DEFORMED N-155 SUPERALLOY |
| | D-15 | D. Živanić, V. Đurković, S. Jovančić<br>ANALYZING METHODS FOR THE RESPONSES OF THE LAUNCHING SYSTEM SUBJECTED TO THE STOCHASTIC EXCITATION CAUSED BY WIND |

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| | D-14 | N. Vasović<br>SISTEM SIZE COHERENCE RESONANCE INDUCED BY NOISE AND INFLUENCED BY INTERACTIONS DELAYS |
| 16.45-17.00 | Coffee Break | |
| 17.00-18.15 | *Chairs: Vlada Đurković, Vera Nikolić-Stanojević* | |
| | D-07 | R. Pavlović, P. Rajković, I. Pavlović<br>THE NUMERICAL TREATMENT OF FRACTIONAL DIFFERENTIAL EQUATIONS FOR THE LATERAL VIBRATIONS OF AN AXIALLY COMPRESSED VISCO-ELASTIC ROD |
| | D-01 | M. Blagojević, M. Živković<br>ELECTROSTATIC FIELD ANALYSIS USING HEAT TRANSFER ANALOGY |
| | D-10 | A. Rinaldi, S. Mastilović<br>CONSTITUTIVE RELATIONS FOR HARDENING AND SOFTENING OF BRITTLE 2D LATTICES |
| | D-06 | R. Pavlović, I. Pavlović, V. Stojanović<br>INFLUENCE OF TRANSVERSE SHEAR AND ROTARY INERTIA ON VIBRATION AND STABILITY OF CROSS-PLY LAMINATED PLATES |
| | D-12 | A. Simonović, O. Peković, S. Stupar, S. Trivković<br>STIFFENING RIB DESIGN PARAMETERS DEFINITION USING OPTIMIZATION METHODS |

| **ROOM 3** |
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| WEDNESDAY, 6. July 2011 |

| Section A, **General Mechanics** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Zoran Golubović, Nikola Mladenović* | |
| | A-05 | M. P. Lazarević, Lj. Bučanović<br>FURTHER RESULTS ON PI$^{\alpha}$ D$^{\beta}$ TYPE CONTROL OF EXPANSION TURBINE IN THE AIR PRODUCTION CRYOGENIC LIQUID |
| | A-06 | S. Mastilović<br>SOME NOTES ON STOCHASTICITY OF DYNAMIC RESPONSE OF 2D BRITTLE LATTICES |
| | A-16 | N. Zorić, Z. Mitrović, A. Simonović<br>MULTI-OBJECTIVE OPTIMIZATION OF PIEZOELECTRIC SENSOR AND ACTUATOR PLACEMENT AND SIZING FOR ACTIVE VIBRATION CONTROL |
| | A-03 | V. Dragović, K. Kukić<br>DISCRIMINANT SEPARABILITY AND KOWALEVSKI-TYPE SYSTEMS |
| | A-17 | N. Zorić, M. Lazarević<br>FRACTIONAL ORDER ACTIVE CONTROL OF NONLINEAR VIBRATIONS OF SMART COMPOSITE BEAMS |
| 12.30-12.45 | Coffee Break | |

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| 15.30-16.45 | *Chairs: Milan Mićunović, Srđan Rusov* | |
| | A-02 | A. B. Byachkov, M. P.Yushkov<br>ON THE TENSOR FORM OF THE UDWADIA-KALABA EQUATIONS |
| | A-04 | Y. N. Fedorov, B. Jovanović<br>INTEGRABLE SYSTEMS ON STIEFEL VARIETIES |
| | A-08 | Z. Mitrović, S. Rusov, N. Mladenović, A. Obradović<br>FUZZY OPTIMIZATION OF CANTILEVER BEAM |
| | A-15 | V. Vujičić<br>MOND teorija Modifikacija Njutnovske dinamike |
| | A-11 | D. Radojević<br>A NOTE ON KASNER METRIC |
| 16.45-17.00 | Coffee Break | |
| 17.00-18.15 | *Chairs: Zoran Mitrović, Carmelia Frigiou* | |
| | A-01 | K. Antipov, A. Tikhonov<br>ON HIGHER-RANK TENSORS IN THEORETICAL MECHANICS |
| | A-07 | M. Mićunović, Lj. Kudrjavceva<br>ON VISCOPLASTICITY OF TRANSVERSELY ISOTROPIC QUASI-RATE INDEPENDENT MATERIALS |
| | A-14 | J. Vidaković, V. Kaplarević,V. Kvrgić, M. Lazarević<br>IMPLEMENTATION OF OPEN ARCHITECTURE SOFTWARE IN ROBOT AND MACHINE TOOLS CONTROL |
| | A-18 | M. Živanović<br>CONTROL FORCE FOR SCLERONOMIC MECHANICAL SYSTEM IN DECOMPOSITION MODE |
| | A-09 | D. Perišić<br>STOCHASTIC OPTIMAL CONTROL WITH JUMPS AND INFORMATION CONSTRAINTS |
| | A-10 | D. M. Perišić<br>STOCHASTIC MINIMAX DYNAMIC GAMES WITH INFORMATION CONSTRAINTS |

| **ROOM 1** |
|---|
| THURSDAY, 7. July 2011 |

| Section C, **Mechanics of Solid Bodies** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Miroslav Živković, Strain Posavljak* | |
| | C-31 | S. Maksimović, I. Vasović, M. Maksimović, M. Đurić.<br>RESIDUAL LIFE ESTIMATION OF DAMAGED STRUCTURAL COMPONENTS USING LOW-CYCLE FATIGUE PROPERTIES |
| | C-05 | M. Blažić, K. Maksimović, Y. Assoul<br>DETERMINATION OF STRESS INTENSITY FACTORS OF STRUCTURAL ELEMENTS BY SURFACE CRACKS |
| | C-06 | M. Bojanić<br>STABILITY ANALYSIS OF LAYERED COMPOSITE PANELS BY FINITE ELEMENTS |
| | C-07 | S. Boljanović, S. Maksimović, A. Carpinteri<br>NUMERICAL MODELING OF SEMI-ELLIPTICAL CRACK GROWTH UNDER CYCLIC LOADING |
| | C-20 | I. Ilić, M. Đurić<br>NUMERICAL SIMULATION OF MECHANICALLY FASTENED JOINTS BY FINITE ELEMENTS |
| | C-42 | V. Nikolić, Ć. Dolićanin, Lj. Veljović, M. Obradović<br>DYNAMIC SYSTEMS FOR REDUCTION OF BILDING OSCILATIONS |
| 12.30-12.45 | Coffee Break | |
| 15.30-16.45 | *Chairs: Stevan Maksimović, Slobodanka Boljanović* | |
| | C-48 | D. Rakić, M. Živković<br>STRESS INTEGRATION OF THE MOHR-COULOMB MATERIAL MODEL USING INCREMENTAL PLASTICITY THEORY |
| | C-30 | J. Lozanović Šajić<br>STRUCTURAL INTEGRITY AND LIFE WITH STEREOMETRIC MACHINE VISION |
| | C-45 | S. Posavljak, M. Janković, K. Maksimović<br>DAMAGE OF AERO ENGINE DISKS IN FUNCTION OF CYCLYC MATERIAL PROPERTIES AND TYPE OF ENGINE START-STOP CYCLES |
| | C-44 | M. Perić, D. Stamenković<br>AN ENGINEERING APPROACH TO WELDING SIMULATION USING SIMPLIFIED MATERIAL PROPERTIES |
| | C-40 | G. V. Milovanović , T. Igić , N. Tončev<br>SOME QUADRATURE RULES FOR FINITE ELEMENT METHOD AND BOUNDARY ELEMENT METHOD |
| 16.45-17.00 | Coffee Break | |
| 17.00-18.15 | *Chairs: Taško Maneski, Marko Rakin* | |
| | C-27 | M. Kutin, S. Ristić, M. Puharić, M. Ristić<br>TENSILE FEATURES OF CONTRACTUAL HOLE IN PLATE SPECIMEN TESTING BY THERMOGRAPHY AND CONVENTIONAL METHOD |

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| 17.00-18.15 | C-43 | M. Ognjanović, M. Benur<br>VIBRATIONS AS DESIGN CONSTRAINT IN MACHINE SYSTEMS DESIGN |
| | C-18 | I. Grozdanović<br>NOISE INDUCED COHERENT OSCILATIONS IN FITZ HUGH-NAGUMO EXCITABLE SYSTEMS INFLUENCED BY COUPLING DELAY |
| | C-03 | A. Bhaskar<br>TRAPPED WAVES AND END EFFECTS IN ELASTIC WAVEGUIDES |
| | C-28 | V. Kvrgić, J. Vidaković, V. Kaplarević, M. Lazarević<br>FORWARD AND INVERSE KINEMATICS FOR VERTICAL 5-AXIS TURNING CENTER WITH ANGULAR HEAD OF NON-INTERECTIONAL AXES, WITH COMPENSATION FOR TABLE MOVING CAUSED BY THERMAL DILATATION |

| **ROOM 2** |
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| THURSDAY, 7. July 2011 |

| Section C, **Mechanics of Solid Bodies** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Tomislav Igić, Nina Anđelić* | |
| | C-60 | D. Zlatkov, S. Zdravković, T. Igić, B. Mladenović<br>DESIGN OF SYSTEMS WITH SEMI-RIGID CONNECTIONS BY DEFORMATION METHOD ACCORDING TO THE SECOND-ORDER THEORY |
| | C-54 | D. Šumarac, S. Jocković, M. Marjanović<br>STATIC AND KINEMATIC HEIGHT LIMIT OF VERTICAL SLOPE |
| | C-16 | A. Grbović, N. Vidanović, D. Jevremović<br>THE USE OF FINITE ELEMENT METHOD (FEM) FOR ANALYZING STRESS DISTRIBUTION IN ADHESIVE INLAY BRIDGES |
| | C-53 | D. Šumarac, J. Dragaš<br>LIMIT ANALYSIS OF PLATES |
| | C-55 | M. Tomičić-Toplaković, V. Rađen<br>SLAB TRACK WITH "MASS-SPRING" SYSTEM |
| | C-10 | S. Ćorić, S. Brčić<br>BUCKLING OF PLANE FRAMES IN ELASTO-PLASTIC DOMAIN |
| 12.30-12.45 | Coffee Break | |
| 15.30-16.45 | *Chairs: Đorđe Vuksanović, V. Milošević-Mitić* | |
| | C-58 | N. Vidanović, G. Kastratović, A. Grbović<br>THE ANALYSIS OF CONTACT EFFECTS IN WIRE ROPE STRAND USING THE FINITE ELEMENT METHOD |
| | C-57 | N. Vasić, I. Čamagić, Z. Vasić<br>HIGH TEMPERATURE INFLUENCE ON SANDWICH BEAM STABILITY |

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| 15.30-16.45 | C-56 | N. Trišović, T. Maneski, Lj. Milović, T. Lazović<br>REANALYSIS FOR STRUCTURAL DYNAMIC MODIFICATIONS |
| | C-59 | S. Zdravković, T. Igić, D. Turnić<br>REQUIRED MECHANICAL PROPERTIES OF THE MATERIAL DURING CALCULATION OF MASONRY BUILDINGS IN SEISMIC AREAS |
| | C-65 | M. Živković, M. Topalović, R. Slavković, V. Dunić<br>ABAQUS SUBROUTINE DEVELOPMENT AND IMPLEMENTATION FOR NEO-HOOK HYPERELASTIC MATERIAL MODEL |
| 16.45-17.00 | Coffee Break | |
| 17.00-18.15 | *Chairs: Stanko Brčić, Ljubica Milović* | |
| | C-64 | M. M. Živković, A. R. Dišić<br>NUMERICAL SIMULATION OF EXPERIMENT FOR MATERIAL TESTING AT HIGH STAIN RATE BASED ON TENSION HOPKINSON BAR |
| | C-17 | A. Grbović, N. Vidanović, G. Kastratović<br>THE USE OF FINITE ELEMENT METHOD (FEM) FOR SIMULATING CRACK GROWTH IN MINI DENTAL IMPLANTS (MDI) |
| | C-21 | G. Janevski, P. Kozić, I. Pavlović<br>MOMENT LYAPUNOV EXPONENTS AND STOCHASTIC STABILITY OF A THIN-WALLED BEAM DRIVEN BY REAL NOISE |
| | C-39 | V. Milošević-Mitić, T. Maneski, N. Anđelić<br>BENDING OF A THIN PLATE SUBJECTED TO STRONG UNIFORM MAGNETIC FIELD |
| | C-15 | V. Golubović-Bugarski, D. Blagojević, J. Škundrić<br>METHODS OF VERIFYING THE FREQUENCY RESPONSE FUNCTIONS QUALITY IN MODAL TESTING |

| **ROOM 3** |
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| THURSDAY, 7. July 2011 |

| Section B, **Fluid Mechanics** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 11.00-12.30 | *Chairs: Boško Rašuo, Zoran Boričić* | |
| | B-08 | M. Kozić, S. Ristic, M. Puharić, B. Katavić<br>COMPARISON OF EULER-EULER AND EULER-LAGRANGE APPROACH IN NUMERICAL SIMULATION OF MULTIPHASE FLOW IN VENTILATION MILL |
| | B-03 | Đ. Čantrak, M. Nedeljković, N. Janković<br>TURBULENT SWIRL FLOW DYNAMICS |
| | B-04 | A. Ćoćić, I. Guranov, M. Lečić<br>NUMERICAL INVESTIGATION OF LAMINAR FLOW IN SQUARE CURVED DUCT WITH 90_ BEND |

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| 11.00-12.30 | B-07 | M. Jovanović, J. Nikodijević<br>DIRECT NUMERICAL SIMULATION OF TWO-DIMENSIONAL COUETTE FLOW INSTABILITY |
| | B-02 | Z. Boričić, D. Nikodijević, Z. Stamenković<br>UNSTEADY TEMPERATURE MHD BOUNDARY LAYER ON THE POROUS BODY OF ARBITRARY SHAPE |
| | B-11 | N. Mirkov, N. Vidanović , B. Rasuo<br>NUMERICAL SIMULATION OF SEPARATED TURBULENT FLOW IN ASYMMETRIC DIFFUSERS |
| 12.30-12.45 | Coffee Break | |

| Mini-symposium M2, **Nonlinear Dynamics Milutin Milankovic**<br>**Organizer: Katica Stevanović-Hedrih** | | |
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| 15.30-16.45 | *Chairs*: *Katica Stevanović-Hedrih, Camelia Frigiou* | |
| | M2-07 | K. Stevanović-Hedrih<br>TANGENT SPACES OF POSITION VECTORS AND ANGULAR VELOCITIES OF THEIR BASIC VECTORS IN DIFFERENT COORDINATE SYSTEMS |
| | M2-12 | I. Kovačić, Z. Rakarić<br>ON THE BEHAVIOUR OF FORCED OSCILLATORS WITH A NON-NEGATIVE REAL-POWER RESTORING FORCE AND VAN DER POL DAMPING |
| | M2-19 | T. Shmatko<br>STABILITY OF NONLINEAR VIBRATIONS MODES FOR SHALLOW SHELLS WITH COMPLICATED SHAPE |
| | M2-16 | V. Raičević, S. Jović<br>VIBRO-IMPACT SYSTEM BASED ON OSCILLATOR, WITH TWO HEAVY MASS PARTICLES MOVING ALONG A ROUGH PARABOLA |
| | M2-01 | J. Awrejcewicz, D. Grzelczyk<br>MODELLING AND ANALYSIS OF THE THERMAL PROCESSES IN THE MECHANICAL CLUTCH/BRAKE SYSTEMS |
| | M2-05 | A. Hedrih, K. Stevanović-Hedrih<br>CONSIDERING FORCED VIBRATIONS OF THE DOUBLE DNA HELIX MAIN CHAINS VIA TWO MODELS WITH ELASTIC AND FRACTIONAL ORDER PROPERTIES |
| 16.45-17.00 | Coffee Break | |
| 17.00-18.15 | | *Chairs*: *J. Awrejcewicz, A. Obradović* |
| | M2-10 | S. Jović, V. Raičević, Lj. Garić<br>ENERGY ANALYSIS OF VIBRO-IMPACT SYSTEM BASED ON OSCILLATOR WITH TWO HEAVY MASS PARTICLES ALONG HORIZONTAL ROUGH LINE |
| | M2-08 | K. Stevanović-Hedrih<br>METHOD OF ASYNCHRONIZATION/SYNCHRONIZATION BAZED ON THE COUPLING OF ORTHOGONAL ASYNCHRONIC OSCILLATIONS |
| | M2-13 | L. Kurpa, N. Budnikov<br>NONLINEAR VIBRATION OF LAMINATED COMPOSITE PLATES AND SHALLOW SHELLS WITH COMPLEX SHAPE |

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| 17.00-18.15 | M2-09 | K. Stevanović-Hedrih, Lj. Veljović<br>ANALYSIS OF THE VECTOR ROTATORS OF A RIGID BODY NONLINEAR DYNAMICS ABOUT TWO AXES WITHOUT SECTION |
| | M2-06 | A. Hedrih, K. Stevanović-Hedrih<br>MODELING DOUBLE DNA HELIX MAIN CHAINS FORCED VIBRATIONS |

| **ROOM 1** |
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| FRIDAY, 8. July 2011 |

| Section C, **Mechanics of Solid Bodies** | | |
|---|---|---|
| Time | No. of paper | Paper |
| 10.00-11.15 | *Chairs: A. A. Liolios, NatašaTrišović* | |
| | C-11 | J. Dautović, S. Đurković, V. Madić<br>ONE METHOD OF EXPERIMENTAL DETERMINIG OF TORSION MOMENT ON SHAFT BY NON-CONTACT MEASUREMENT |
| | C-33 | T. Maneski, P. Jovančić, D. Ignjatović, V. Milošević-Mitić, N.Trišović<br>NUMERICAL AND EXPERIMENTAL DIAGNOSTIC OF DYNAMIC BEHAVIOR OF THE ROTOR-EXCAVATOR CONSTRUCTION |
| | C-14 | P. Elek, V. Džingalašević, S. Jaramaz<br>DETERMINATION OF DETONATION PRODUCTS EQUATION OF STATE USING |
| | C-29 | A. A. Liolios, C. E. Chalioris, K. A. Liolios<br>A NUMERICAL APPROACH FOR REINFORCED CONCRETE STRUCTURES ENVIRONMENTALLY DAMAGED AND CABLE-STRENGTHENED |
| | C-24 | D. Jovanović<br>LOCAL STRAIN ENERGY DISTRIBUTION AT THE CRACK TIP VICINITY |
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| 11.30-12.45 | C-62 | N. Zrnić, A. Obradović, V. Gašić, S. Bošnjak<br>COMPARISON AND QUANTIFICATION OF SOME DYNAMIC PARAMETERS THAT CONTRIBUTE TO THE MOVING LOAD MODELS IN STRUCTURAL DYNAMICS OF HIGH-PERFORMANCE CRANES |
| | C-63 | M. Žigić, N. Grahovac<br>DYNAMICAL BEHAVIOR OF A POLYMER GEL DURING IMPACT FRACTIONAL DERIVATIVE VISCOELASTIC MODEL |
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| **ROOM 2** |
|---|
| FRIDAY, 8. July 2011 |

| Mini-symposium M1, **Computational Biomechanics**<br>**Organizer: Nenad Filipović** | | |
|---|---|---|
| Time | No. of paper | Paper |
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| | M1-01 | V. Isailović, T. Đukić, M. Ferrari, N. Filipović, M. Kojić<br>MOTION OF CIRCULAR AND ELLIPTICAL PARTICLES IN LAMINAR FLOWS |
| | M1-02 | D. Milasinović, A. Cvetković, N. Filipović, M. Kojić<br>SIMULATION OF THE CONDITIONS LEADING TO DUODENAL STUMP DISRUPTION AFTER BILLROTH II GASTRIC RESECTION |
| | M1-04 | Z. Milosević, B. Stojanović, V. Isailović, D. Nikolić, D.Milasinović, M. Radović, T. Exarchos, K. Stefanou, P. Siogkas, A. Sakelarios, D. Fotiadis, O. Parodi, N. Zdravković, M. Kojić, N.Filipović<br>ARTOOL: A PLATFORM FOR THE DEVELOPMENT OF MULTI-LEVEL PATIENT-SPECIFIC ARTERY AND ATHEROGENESIS MODELS |
| | M1-03 | M. Milosević, A. Ziemus, M. Ferrari, M. Kojić<br>MODELING OF DIFFUSION WITHIN NANOCHANNELS WITH SURFACE EFFECTS |
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| | *Chairs: Miloš Kojić, Ivana Kovačić* | |
| 11.30-12.45 | M1-05 | M. Obradović, A. Avilla, A. Thiagalingam, N. Filipović<br>MODELING ABLATION ON THE ENDOCARDIUM AND TEMPERATURE DISTRIBUTION DURING RF ABLATION |
| | M1-06 | D. Petrović, M. Obradović, A. Jovanović, S. Jovanović, D. Balos, M. Kojić, N. Filipović<br>DPD MODELING OF INHIBITION PROCESS OF COROSION PROTECTION USING NANOCONTAINERS |

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| 11.30-12.45 | M1-07 | M. Radović, D. Petrović, N. Filipović<br>DATA MININIG APPLICATION IN THE WALL SHEAR STRESS DISTRIBUTION PREDICTION FOR ANEURYSM AND CAROTID BIFURCATION MODELS |
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| **ROOM 3** |
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| FRIDAY, 8. July 2011 |

| Mini-symposium M2, **Nonlinear Dynamics Milutin Milankovic**<br>**Organizer: Katica Stevanović-Hedrih** | | |
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| | M2-02 | R. Bulatović, M. Kažić<br>ON THE DEGREE OF INSTABILITY OF MECHANICAL SYSTEMS |
| | M2-03 | L. Cvetićanin<br>REVIEW ON MECHANICAL MODELING OF THE HUMAN VOICE PRODUCTION SYSTEMS |
| | M2-04 | C. Frigioiu<br>GEOMETRIC ASPECTS OF NONHOLONOMIC MECHANICAL SYSTEMS |
| | M2-11 | J. T. Katsikadelis<br>A NEW DIRECT TIME INTEGRATION METHOD FOR THE EQUATIONS OF MOTION IN STRUCTURAL DYNAMICS |
| | M2-15 | A. Obradović, S. Šalinić , O. Jeremić, Z. Mitrović<br>BRACHISTOCHRONIC MOTION OF A VARIABLE MASS SYSTEM |
| | M2-18 | J. Simonović<br>SYNCHRONIZATION AT SYSTEM OF TWO CIRCULAR PLATES WITH ROLLING VISCO-ELASTIC NONLINEAR COUPLING |
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| | B-09 | S. Linić , D. Matić , M. Puharić, V. Lučanin<br>EFFICIENCY DETERMINATION OF THE AERODYNAMIC BRAKES FOR DIFFERENT TRAIN'S SPEEDS |
| | B-12 | B. Stanković, S. Belošević, M. Sijerčić, N.Crnomarković, V.Beljanski, I.Tomanović, A. Stojanović<br>INVESTIGATION OF FULLY DEVELOPED PLANE TURBULENT CHANNEL FLOW BY MEANS OF REYNOLDS STRESS MODELS |

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| 11.30-12.45 | B-05 | D. Jerković, S. Ilić, A. Kari, D. Regodić<br>INFLUENCE OF AERODYNAMIC COEFFICIENT ON THE STABILITY OF THE CLASSIC AXIS-SYMMETRICAL PROJECTILE |
| | B-06 | M. Jovanović<br>PSEUDOSPECTRAL SIMULATION OF THE TWO-DIMENSIONAL POISEUILLE-RAYLEIGH-BÉNARD FLOWS INSTABILITIES |
| | B-10 | D. Mađarević<br>SHOCK STRUCTURE IN MULTI-TEMPERATURE MODEL OF GASEOUS MIXTURES AND ITS COMPARISON WITH EXPERIMENTAL RESULTS |
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