



Programme at a glance 10th ICSSM

Day 1, June 18, 2025

Time	Activity
08:00 - 09:40	Registration
09:40 - 10:10	Opening Ceremony
10:15 - 11:00	Plenary Lecture 1
11:00 - 11:15	Short Break
11:15 - 12:00	Plenary Lecture 2
12:00 - 13:10	Lunch Break
13:10 - 13:55	Plenary Lecture 3
14:00 - 15:00	Plenary Session for Laureate for Rastko Stojanovic Award (60 min + 20 min for comments) 4 papers: - 10ICSSM – Milic - C - 10ICSSM - Milosavljevic - B - 10ICSSM - Vrecica - B
15:00 - 15:30	Coffee Break (transfer from NTP to MFN building)
15:30 - 16:30	Parallel Sessions: - Session A: 3 papers (45 min + 15 min for comments) - Session M4: 3 papers (45 min + 15 min for comments) - Session D: 3 papers (45 min + 15 min for comments) - Session M3: 3 papers (45 min + 15 min for comments)
16:30 - 17:00	Coffee Break
17:00 - 18:20	Parallel Sessions: - Session M2: 3 papers (65 min + 15 min for comments) - Session B: 4 papers (60 min + 20 min for comments) - Session M3: 3 papers (45 min + 15 min for comments) - Session M4: 3 papers (45 min + 15 min for comments)



10th ICSSM Technical programme

Day 1, June 18, 2025

08:00 - 09:40	Registration At the registration desk in the Scientific Technology Park (STP)
09:40 - 10:10	Opening Ceremony <ul style="list-style-type: none"> • Prof. Srboľjub Simić, President of SSM • Prof. Vladimir Stojanović, President of the Organizing Committee • Prof. Goran Janevski, Dean of the Faculty of Mechanical Engineering (FME), University of Niš
10:15 - 11:00	Plenary Lecture A robust shell finite element and nonlocal approaches in mechanics - Prof. J.N. Reddy, <i>Texas A&M University, College Station, Texas, USA</i> (10ICSSM-Reddy)
11:00 - 11:15	Short technical break
11:15 - 12:00	Plenary Lecture Resolution of the twentieth century conundrum in elastic stability – Prof. I. Elishakoff, <i>Florida Atlantic University, Boca Raton, Florida, USA</i> (10ICSSM-Elishakoff)
12:00 - 13:10	Buffet lunch (At the foyer of the Scientific Technology Park)
13:10 - 13:55	Plenary Lecture Modeling of contact fatigue fracture of deformable bodies in frictional interaction – Prof. I. Goryacheva, <i>Ishlinsky Institute for Problems in Mechanics RAS, Moscow, Russia</i> (10ICSSM- Goryacheva)
14:00 - 15:00	Session for Laureate for Rastko Stojanović Award <ul style="list-style-type: none"> • C.5 - Comparative vibration stability analysis of a complex moving object with two novel stabilizers – <i>Milic D.</i> (10ICSSM - Milic - C) • B.13 - Infragravity waves – <i>Vrecica T.</i> (10ICSSM - Vrecica - B)
15:00 - 15:30	Coffee Break (transfer from the STP to the FME building)
15:30 - 16:30	Parallel Sessions
Day 1, June 18 15:30 - 16:30	Session A, Room: Chairs: Gajic B., Mathematical Institute SANU, Belgrade, Serbia

3 papers (15 min + 5 min for comments every):

- **A.1 - On a stability of the beams with and without elastic foundation**– *Berecki A., Mihok S., Rehlicki Lukesevic L.* (10ICSSM - Berecki et al. - A)
- **A.2 - On the properties of friction to maintain the state of rest of a tripod on a rough surface** – *Dosaev M.* (10ICSSM - Dosaev-A)



- **A.3 - Bridging mechanics with statistics and geometry** – *Dragovic V., Gajic B.* (10ICSSM - Dragovic and Gajic - A)

Day 1, June 18 15:30 - 16:30	Session M4, Room: Chairs: Nestorovic T., <i>Mechanics of Adaptive Systems, Ruhr-Universität Bochum, Germany</i> and Simonovic J., <i>Faculty of Mechanical Engineering, University of Nis, Serbia</i>
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3 papers (15 min + 5 min for comments every):

- **M.4.1 - Motion analysis of a single-mass vibro impact system** – *Garic Lj, Nestic N., Lekic J., Jovanovic S., Stosovic D.* (10ICSSM - Garic et al. - M4)
- **M.4.2 - Asymptotic methods of nonlinear mechanics through a series of scientific projects, magister's and doctoral dissertations: nonlinear phenomena, trigger of coupled singularities and frequencies as bifurcation parameters** – *Stevanovic Hedrih K.* (10ICSSM - Hedrih (Stevanovic) - M4)
- **M.4.4 - Elliptical, circular orbits and applications** – *Mateljevic M.* (10ICSSM - Mateljevic - M4)

Day 1, June 18 15:30 - 16:30	Session D, Room: Chairs: Slavkovic N., <i>Faculty of Mechanical Engineering, University of Belgrade, Serbia</i>
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3 papers (15 min + 5 min for comments every):

- **D.1 - Critical temperature of FGM plates resting on elastic foundations using layerwise finite element** – *Cetkovic M.* (10ICSSM - Cetkovic - D)
- **D.2 - A system engineering approach for robot manipulator design using game engine simulation and computational modelling** – *Devic A., Vidakovic J., Slavkovic N., Lazarevic M., Zivkovic N.* (10ICSSM - Devic et al. - D)
- **D.3 - Ballistic impact of fragment-simulating projectiles on steel targets: a multi-approach study** – *Elek P., Markovic M., Jevtic D., Djurovic R.* (10ICSSM - Elek et al - D)

Day 1, June 18 15:30 - 16:30	Session M3, Room: Chairs: Dosaev M., <i>Institute of Mechanics of Lomonosov Moscow State University, Russia</i>
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3 papers (15 min + 5 min for comments every):

- **M.3.1 - Deformation of human chest as an elastic truss** – *Alpatov I., Dosaev M., Samsonov V., Vorobyeva E., Dubrov V.* (10ICSSM - Alpatov et al. - M3)
- **M.3.2 - Numerical simulations of blood flow in vessels with different geometries** – *Antonova N., Xu D.* (10ICSSM - Antonova and Xu - M3)
- **M.3.3 - A continuous-time SIS criss-cross model of co-infection in a heterogeneous population** – *Choiński M.* (10ICSSM - Choinski - M3)

16:30 - 17:00	Coffee Break (At the lobby area of sixth floor FME)
17:00- 18:20	Parallel Sessions
Day 1, June 18 17:00 - 18:25	Session M2, Room: Chairs: Cantrak Dj., <i>Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia</i> and Pei J., <i>National Research Center of Pumps, Jiangsu University, Zhenjiang, Jiangsu Province, China</i>



Day 1, June 18 17:00 - 17:40	Invited lecture M.2.9 - Towards the characterisation of flow perturbation transmission in convergent nozzles affecting free water jet surfaces – Bernhard Semlitsch, <i>TU Wien, Institute of Energy Systems and Thermodynamics, Austria</i> (10ICSSM - Semlitsch - M2)
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2 papers (15 min + 5 min for comments every):

- M.2.10 - **Comparison of noise spectra of the flow past a cylinder computed by different turbulence models** – *Svorcan J., Vilotijevic V.* (10ICSSM - Svorcan and Vilotijevic - M2)
- M.2.2 - **Application of air torque position dampers for airflow measurement** – *Bikic S., Radojcin M., Pavkov I., Debski H., Al Afif R.* (10ICSSM - Bikic et al. - M2)

Day 1, June 18 17:00 - 18:20	Session B, Room: Chairs: <i>Bogdanovic Jovanovic J., Faculty of Mechanical Engineering, University of Nis, Serbia and Kocic M., Faculty of Mechanical Engineering, University of Nis, Serbia</i>
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4 papers (15 min + 5 min for comments every):

- B.1 - **Gas flow blockage in the near-wellbore region: Freshwater stimulation against the salting-out effect** – *Afanasyev A., Grechko S.* (10ICSSM - Afanasyev et al. - B)
- B.2 - **Influence of rotation on drag coefficient and unsteady flow around an NFL ball** – *Begovic V., Miljkovic P., Stamenkovic Z., Kocic M.* (10ICSSM - Begovic et al. - B)
- B.3. - **Iterative procedure for determining meridional streamlines of averaged flow in a turbomachine impeller** – *Bogdanovic Jovanovic J., Stamenkovic Z., Kocic M., Petrovic J.* (10ICSSM - Bogdanovic Jovanovic et al. - B)
- B.9. - **Numerical investigation of fluid mixing in a micromixer using CFD simulations** – *Mirovic M., Begovic V., Miljkovic P., Sreckovic D.* (10ICSSM - Mirovic et al. - B)

Day 1, June 18 17:00 - 18:00	Session M3, Room: Chairs: <i>Antonova N. M., Institute of Mechanics Bulgarian Academy of Sciences, Sofia, Bulgaria</i>
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3 papers (15 min + 5 min for comments every):

- M.3.4 - **The physics of intelligence: can the fermionic mind hypothesis provide a theoretical framework for understanding consciousness?** – *Déli E., Kiss Z.* (10ICSSM - Deli and Kiss - M3)
- M.3.6 - **FSI analysis of parametric stent geometry influence on WSS-induced in-stent restenosis** – *Khairulin A., Kuchumov A.* (10ICSSM - Khairulin and Kuchumov - M3)
- M.3.5 - **Modelling zona pellucida as a thermosensitive polymer under mechanical load** – *Hedrih A., Jovanovic Dj.* (10ICSSM - Hedrih and Jovanovic - M3)

Day 1, June 18 17:00 - 18:00	Session M4, Room: Chairs: <i>Lazarevic M., Faculty of Mechanical Engineering, University of Belgrade, Serbia and Simonovic J., Faculty of Mechanical Engineering, University of Nis, Serbia</i>
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3 papers (15 min + 5 min for comments every):

- M.4.6 - **Model identification of a locally nonlinear structure** – *Nestorovic T., Ul-Hasnain A., Oveisi A.* (10ICSSM - Nestorovic et al. - M4)



- **M.4.7 - Nonlinear pushover analysis: Assessment of a moment-resisting steel frame**
– *Slavkovic K., Zoric A., Trajkovic Milenkovic M., Petronijevic P.* (10ICSSM - Slavkovic et al. - M4)
- **M.4.5 - Nonlinear vibration of a platform system with non-ideal motor** – *Nesic N., Simonovic J., Lima J., Balthazar J.M., Tusset A.M.* (10ICSSM - Nesic et al. - M4)