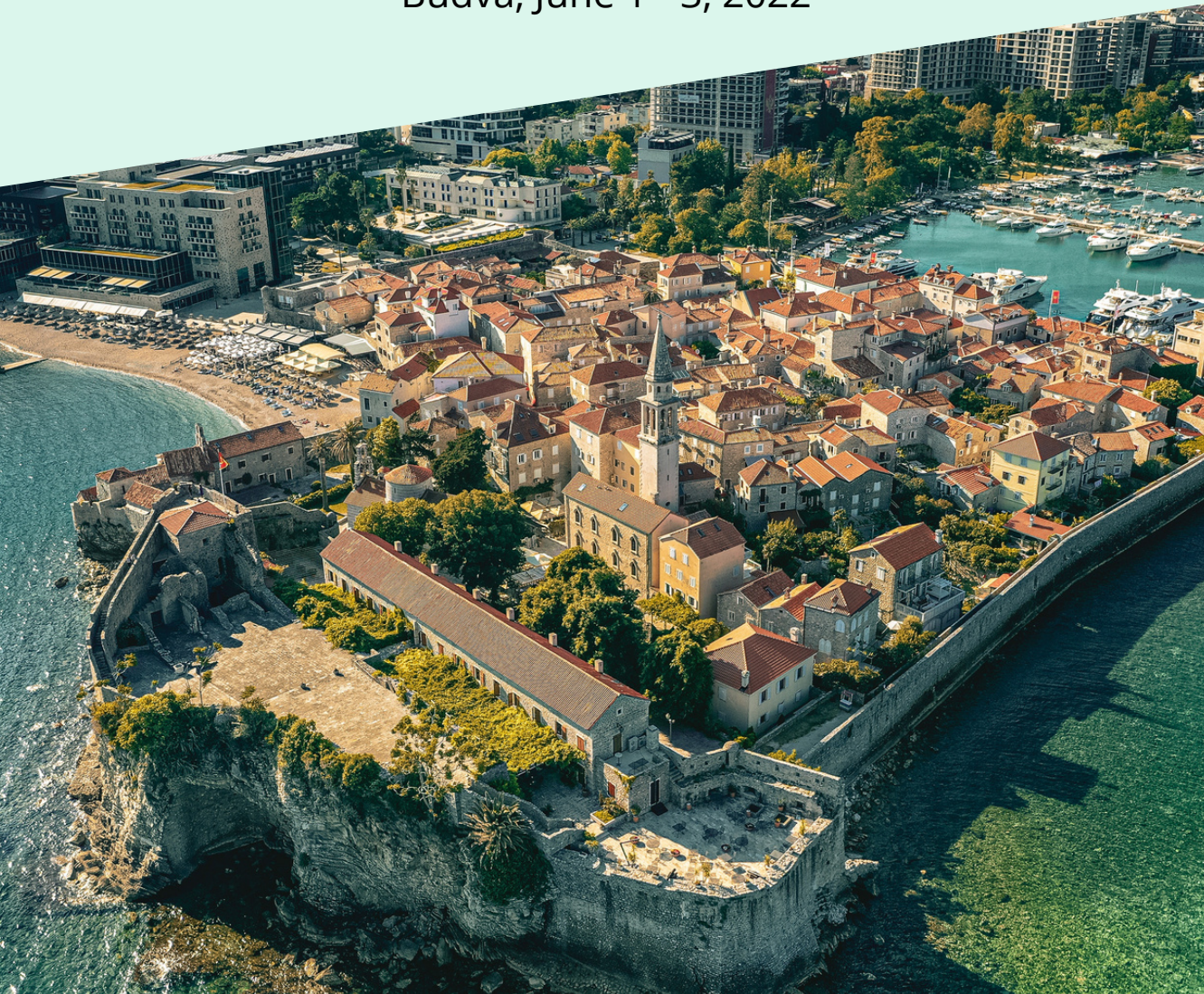International conference

Mathematics, Numerics and Applications

Program

mna

Budva, June 1 - 3, 2022

MNA 2022 Conference program

1st day – Wednesday, June 1st

| 09:00-10:00 | Reception |
| **LOCATION** | **Main hall of hotel Slovenska plaža** |

10:00–10:45	Opening Ceremony
CHAIRS	**Miroslav Pranić and Aleksandar Pejčev**
LOCATION	**Main conference room of hotel Slovenska plaža**

10:00–10:15	Jelena Tomanović, Aleksandar Pejčev
	(Faculty of Mechanical Engineering, University of Belgrade, Serbia)
	Opening ceremony talk

10:15–10:45	Miodrag M. Spalević
	(Faculty of Mechanical Engineering, University of Belgrade, Serbia)
	How to estimate error in Gaussian quadrature

| 10:45–11:15 | Coffee Break |

11:15-13:30	**Session A1**
CHAIR	Davorka Jandrlić
LOCATION	**Main confernce room of hotel Slovenska plaža**

11:15–12:00	Gradimir V. Milovanović
	(Serbian Academy of Sciences and Arts, Serbia)
	Plenary talk (online)
	Construction of Power Orthogonal Polynomials: Doors for Gaussian Quadrature Formulas With Multiple Nodes

12:00–12:30	Dušan Djukić (online)
	(Faculty of Mechanical Engineering, University of Belgrade, Serbia)
	Some properties of orthogonal polynomials with respect to the Abel weight

12:30–13:00	Aleksandar Sedmak
	(Faculty of Mechanical Engineering, University of Belgrade, Serbia)
	Computational fracture mechanics

13:00–13:30	Davorka R. Jandrlić
	(Faculty of Mechanical Engineering, University of Belgrade, Serbia)
	Numerical evaluation of the error term in Gaussian quadrature with the Legendre weight function

| 13:30-15:00 | Lunch Break |

2nd day – Thursday, June 2nd

09:00-11:15 **CHAIR** **LOCATION**	**Session B1** Miodrag M. Spalević **(Main conference room of hotel Slovenska plaža)**

09:00-09:30	Aleksandar Pejčev (Faculty of Mechanical Engineering, University of Belgrade, Serbia) *On the Gauss-Kronrod quadrature formula for* *a modified weight function of Chebyshev type*
09:30-10:15	Miroslav Pranić (Faculty of Science, University of Banja Luka, Bosnia and Herzegovina) **Plenary talk** *Gauss-type quadrature with multiple nodes*
10:15-10:45	Filip Marić (Faculty of Mathematics, University of Belgrade, Serbia) *Verified simplex algorithm and its applications*
10:45–11:15	Stefan Spalević (Faculty of Electrical Engineering, University of Belgrade, Serbia) *Hierarchical Protein Function Prediction with Tail-GNNs*

11:15–11:45	Coffee Break

11:45–14:00 **CHAIR** **LOCATION**	**Session B2** Davorka Jandrlić **Main conference room of hotel Slovenska plaža**

11:45–12:30	Ramón Orive (Universidad de La Laguna, Spain) **Plenary talk (online)** *Gauss–type cubature formulas for* *the Gaussian weight. Applications*
12:30–13:00	Aleksandar Tomović (online) (Faculty of Mechanical Engineering, University of Belgrade, Serbia) *Influence of boundary conditions on natural frequences of axially functionally* *graded Euler-Bernoulli cantilever beam with attached rigid body at the free end*
13:00–13:30	Andrija Petrović (online) (Singidunum University, Serbia) *Gaussian Conditional Random Fields for Classification*
13:30–14:00	Lidija Krstanović (Faculty of Technical Sciences, University of Novi Sad, Serbia) *The digital processing of medical image based on different types of metrics*

14:00–15:00	Lunch Break
20:00	Conference gala Dinner

3rd day – Friday, June 3rd

09:00–11:15	**Session C1**
CHAIR	Miodrag M. Spalević
LOCATION	**Main conference room of hotel Slovenska plaža**

09:00–09:30	Luka Miličić (Faculty of Mechanical Engineering, University of Belgrade, Serbia) *Overview of numerical methods for solving optimal control problem* *in guidance algorithms*
09:30–10:15	Lothar Reichel (Department of Mathematical Sciences Kent State University, Ohio) **Plenary talk** *Spalević quadrature rules and applications* *in numerical linear algebra*
10:15–10:45	Nevena M. Vasović (Faculty of Hotel Management and Tourism in Vrnjačka Banja, University of Kragujevac) *Generalized Gauss-Rys Quadrature Formulas: Old and New Results*
10:45–11:15	Nikola Mutavdžić (Mathematical institute SANU) *On Lipschitz continuity and smoothness up to the boundary of* *solutions of hyperbolic Poisson's equations*

11:15–11:45	Coffee Break

11:45–13:45	**Session C2**
CHAIR	Rada Mutavdžić Djukic
LOCATION	**Main conference room of hotel Slovenska plaža**

11:45–12:15	Rada Mutavdžić Djukic (Faculty of Mechanical Engineering, University of Belgrade, Serbia) *Weighted averaged Gaussian quadrature rules* *for modified Chebyshev measure*
12:15–12:45	Jelena Tomanović (Faculty of Mechanical Engineering, University of Belgrade, Serbia) *Gauss-type quadrature rules with respect to* *the external zeros of the integrand*
12:45–13:15	Vladimir Kuzmanović (Faculty of Mathematics, University of Belgrade) *3-axis Inertial Measurement Unit* *calibration using least squares approximation*
13:15–13:45	Zorica Milovanović Jeknić (Faculty of Construction Management, University Union-Nikola Tesla) *Convergence of a finite difference scheme for mixed* *parabolic-hyperbolic transmission problem*

13:45–15:00	Lunch Break